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The World Economy in the 1980's

Trends and Issues

by

John Hein

A Chartbook from The Conference Board

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Foreword

As the world's business leaders gather in San Fransisco this September for the International Industrial Conference, the eighth of a series inaugurated in 1957, the world economy is in considerably better shape than at the last meeting, four years ago.

Economic recovery has replaced the severest recession since the 1930's, and double-digit inflation has given way to lower and more sustainable inflation rates. Yet, this transition created some new strains—in agriculture, in mining, in the oil and gas industry worldwide, in large segments of the U.S. manufacturing industry, and in many developing countries.

And the economic outlook remains clouded by large imbalances, both among and within countries. The most serious of these imbalances originate in the United States, with its large budget deficit, unprecedented trade and payments deficits, and a misaligned dollar.

This report portrays in both charts and text the global economic landscape in which these developments have taken place. The charts highlight significant shifts in key sectors over the past ten years and point to emerging trends. The text can be read independently as a series of background essays on major issues and problems. The subjects it covers—population, international trade and finance, inflation, energy and multinationals, to name but a few—bear directly on world economic growth. They are thus of concern not just to international firms, but to all enterprises affected by the global business environment.

JAMES T. MILLS
President

Introduction

The worldwide recession of 1980-1983 was the longest in fifty years. It increased unemployment, reduced investment, and undermined social programs in virtually every country. In addition, it placed great strain on world trade and the international financial system and, in the process, caused friction between governments everywhere. But it probably also provided some valuable lessons since it revealed long-standing weaknesses in the major economies, in the policymaking process, and in international economic and financial arrangements and cooperation.

The recession of the early 1980's had two major causes—the rise in oil prices in 1979, stemming from supply disruptions in Iran, and the disinflationary policies of the authorities in the major industrial countries, taken largely to deal with this second "oil shock." But the need to fight inflationary pressures and the ensuing recession can also be seen as evidence of a longer-term deterioration in the industrial countries' economic performance and potential. Economic growth in those countries has been hampered by the growing inflexibility of their economies, particularly their labor markets, and by upward pressures on public expenditures and associated budget imbalances.

However, the worst of these difficult times appear to be behind us, at least for a while. A contributor to The Conference Board's *1985 International Economic Outlook*, published in November, 1984, provided estimates for the world economy for the rest of the 1980's and commented: "The accompanying table reveals how absolutely grim the five years which ended in 1983 were for all major areas. Even when the recovery year of 1983 is factored in, industrial production had advanced barely at all from 1978 levels, except in Asia. The second revelation of the table is how much better we expect the next five years to be. This does not imply that we forecast an end to all future recessions. But we do not expect the next five years to include more than nine to twelve months of bad times, in contrast to the very atypical twenty-four to thirty-six months of bad news that gripped the world economy during 1978-1983."

Industrial Production
(Average annual change, in percent)

	1978-1983	1983	1984	1984-1989 (est.)
United States	0.3%	6.4%	10.6%	4.5%
Europe	-0.1	0.4	2.5	2.3
Asia	4.6	7.0	13.8	5.9
Americas	1.9	-0.8	1.8	2.2

It is likewise significant that the Intenational Monetary Fund in September, 1984, brought out a revised edition of its annual *World Economic Outlook*, published the

previous April, because "recent indicators suggest that activitity in the world economy is strengthening more rapidly than projected . . . six months ago." The IMF staff provided upward revisions not only for the United States, but also for most other industrial countries. As a result, the September report noted, output in the industrial world in 1984 was going to record "the best growth performance in eight years." This strong recovery, moreover, was beginning "to exert a significant impact on the developing world." And in its latest *World Economic Outlook*, released this past April, the IMF saw global strains easing over the next few years, even if growth was slowing down.

In a similarly optimistic vein, the World Bank, in its 1984 *World Development Report*, explored some scenarios for world economic growth through 1995. The Bank's analysis looked in particular at what had to be done to restore the growth rates of the 1950's and the 1960's, "considering both the choices facing industrial countries and the benefits that developing countries could reap" if the industrial countries adopted the appropriate policies. Such an event, which the Bank calls the "high case," would set the industrial countries' economies on a path of sustained and steady expansion. The "low case," by contrast, indicates "what might happen if the industrial countries were to do nothing to improve their performance of the past ten years." (Both projections and their underlying assumptions are given on pages 22-23 of this report.)

If the industrial countries are capable of renewed and continuous expansion, does that mean that their individual policies need to be better aligned and coordinated? Specifically, do the annual summit meetings of the heads of the seven largest industrial powers have any function in that process?

The general feeling is that, in recent years, the summit gatherings have been evolving in a more productive direction and providing more flexible and more informal opportunities for consultation. They no longer emphasize, as they did in the beginning, formal and specific crisis-management commitments. The earlier meetings had focused on quite detailed coordination of macroeconomic policies—including growth targets for individual countries—and produced disappointing results. In fact, the meetings now seem to recognize that sound domestic policies in each individual country are the best prescription for achieving—indeed, are a prerequisite for—what the 1983 Williamsburg communique called "strengthening cooperation for economic growth and stability."

As Federal Reserve Chairman Paul Volcker declared in his mid-1983 report to the U.S. Congress: "Explicit coordination, interpreted as trying to achieve a common level of, for instance, interest rates or money growth, may be neither practical nor desirable in specific circumstances." Rather, he felt that attempts ought to be made to conduct national monetary and fiscal policies in such a manner that policymakers everywhere were fully aware of both the international consequences of their own actions and the possible reactions of other countries.

The somewhat more optimistic outlook for the world ecomomy that prevailed in late 1984 and early 1985 is tempered, however, by several major trends that are bound to affect international operations in the years ahead.

Foremost on the minds of international business executives is the new wave of protectionism. In the early stages of the recent recession, protectionist sentiment could be attributed primarily to concerns about rapidly rising unemployment; it was, in fact, anticipated that that sentiment would abate after recovery had set in. Yet, protectionist pressures kept rising even after the recovery was well under way. Many arguments were advanced for this trend, including concerns about safeguarding employment and avoiding disruptions in affected industries, the size of bilateral trade imbalances, the effect of unrealistic exchange rates on competitiveness, strategic reasons, and a wide range of trade practices considered to be "unfair." Indeed, as the IMF noted: "It is tempting to conclude that some justification can be found to fit every case."

This kind of protectionism manifests itself largely in the guise of quantitative rather than price-related actions. Many newly taken measures have, in fact, been limited to individual commodities—often from specific supplier countries—or have involved bilateral agreements between trading partners. To some extent, this shift from tariffs, in the form of published and fairly unequivocal schedules, to mainly nontariff barriers, including so-called safeguards, antidumping laws, and countervailing duties, has reinforced many countries' protectionist stance. As the IMF noted in its 1984 report on exchange restrictions: "The high degree of uncertainty about the invocation of these measures against a trading partner and the highly legalistic and political character of such decisions have made commercial policies particularly disruptive to the pattern of trade."

This trend toward reliance on quantitative controls and bilateral agreements has been particularly evident among the industrial countries. Moreover, such actions have been aimed not only at trade among themselves, but also at manufactured goods originating in the developing countries. A table in the World Bank's 1984 *World Development Report* shows the proportion of the major industrial countries' total imports affected by such nontariff barriers (the data reflect barriers in place in 1983, applied to 1980 import values). As the Bank notes, however, such data offer little basis for actual comparison, since the stricter a country's import restrictions are, the less it will actually import and the fewer its imports that are affected by such measures.

	Imports from	
	Industrial Countries	Developing Countries
Switzerland	22.6%	48.8%
France	20.1	7.1
Belgium	19.2	29.7
Japan	19.2	5.4
Netherlands	16.1	19.8
Austria	15.0	8.1
United Kingdom	14.9	14.3
United States	13.0	5.5
Germany	12.6	8.5
Italy	12.5	7.0

A second issue that affects all businesses, whether multinational or not, is the "quality of working life." That term has been defined by a British consultant as

"covering a vast variety of programs, techniques, theories and management styles through which organizations and jobs are designed so as to grant workers more autonomy, responsibility and authority than is usually the case."

The current working environment, which has been called a second industrial revolution, is coming to be based increasingly on information technologies. In such a setting, workers tend to become more and more uneasy when they are without any degree of control over large decisions that affect their lives. More workers will, therefore, seek representation on corporate boards and participation in the equity of their firms so as to have a greater voice in the decision-making process.

This leads to the question of how much progress in information technology may be expected in the years immediately ahead. Speculation about the future of that technology has focused on how much further the processing power of the microchip can be improved, and what the limits to such improvement are. As David S. Saxon, President of the University of California, told a Conference Board R&D conference in 1983: "One [limit] is set by the speed of light, which puts an absolute limit on how fast a computer can process information. Another is the minimum size that can be attained for a single element and the maximum possible density achievable for these elements. Here the human brain is a guide to the limit: 10^{12} or so elements (neurons) in an object the size of our heads."

These are, of course, only the technical limits to information processing. They tell us nothing about the much broader question of what we would do with the information that we may be capable of processing or storing. Information by itself is not an absolute good—to the extent that it remains unsorted and unanalyzed it can be totally useless or even harmful.

Beyond the issues of protectionism, worker participation, and emerging technologies there are many, other equally important, challenges that are likely to face the multinational corporation in the years ahead. A major one is the general political climate in many parts of the global economy, in which all the elements now are interdependent. Another is the legacy of the debt crisis of the early 1980's that forced major debtor countries to tighten their belts—which, in turn, affected their imports and profit remittances. Relatively high levels of unemployment throughout much of the industrial world pose another challenge that means smaller markets and reduced purchasing power.

Another issue concerns a prospective dearth of investment capital as deficit-strapped governments compete for available savings—and dollars continue to command a high value in the exchange markets. State-owned enterprises constitute another shoal that mulitinational companies have to pass successfully, since those enterprises, often operating without a profitability criterion, remain a competitive threat both on their own turf and in other markets.

Finally, companies have to cope with what has been called the "global regulatory onslaught"—that is, attempts by a number of international organizations to set rules under which international business should operate. Many of these attempts, it is true, have either run into lengthy delays or been aborted altogether. Yet, by being undertaken at all, they have yielded a vast amount of information about multinational companies that can be used to monitor their behavior and, in the end, may result in a stricter regulatory climate. All in all, as Professor Albert Cherns of the University of Loughborough told a Toronto conference in the summer of 1981: "The 1980's are no more like the 1970's than the 1970's resemble the 1960's; what was needed then, what worked then, will not necessarily work now."

Population

The World Bank has estimated that the world's population will have increased by about 80 million people in 1984. Most of that increase—about 73 million—will have occured in the developing countries, which now contain about three-quarters of world population. A combination of continued high fertility and reduced mortality has led to population growth of between 2 and 4 percent a year in most developing countries as against an annual rate of 1 percent or less in most industrial countries. Growth at 3 percent a year means that in seventy years population grows eightfold; at 1 percent a year, it merely doubles. Current population growth in the developing world, the World Bank notes, "is a phenomenon for which economic and demographic history offers no real precedent."

Another fact to be noted is that, because of the high fertility and falling infant mortality of the mid-1960's, today about 40 percent of populations in developing countries are aged fifteen or younger. This particular age structure means that birth rates will remain high for some time, even if each mother has fewer children. It also means that the number of young people entering the labor force will continue to increase for the next two decades.

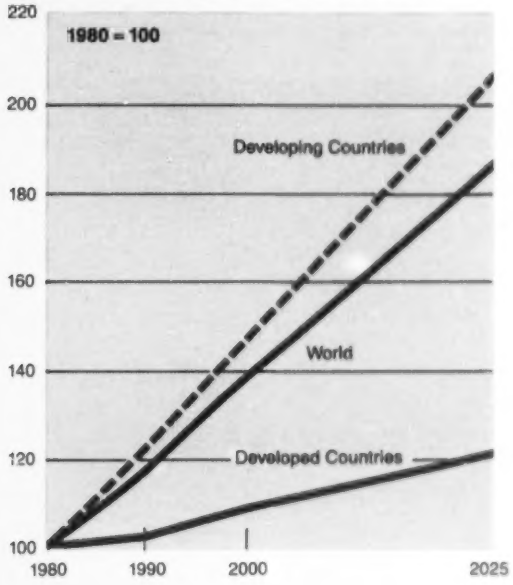
Another population-related phenomenon is that cities in developing countries are growing at almost twice the rate of overall populations. More than half that increase is due to the excess of births over deaths; the rest reflects both migration from rural areas and the reclassification of such areas to urban status. Between 1950 and 1980, the urban population of all developing countries (excluding China) rose by 585 million, compared with a total urban population of just over 300 million in the industrial countries in 1950.

In fact, the world's biggest cities increasingly tend to be in the developing countries. Between 1950 and 1980, the proportion of urban dwellers in cities of over 5 million in developing countries grew at an annual rate of 15 percent. In 1950, San Paolo, which by the year 2000 could well be the world's second largest city (after Mexico City), was smaller than Detroit, Manchester, or Naples. And London, the world's second largest city in 1950, is not even expected to rank among the 25 largest by the end of the century.

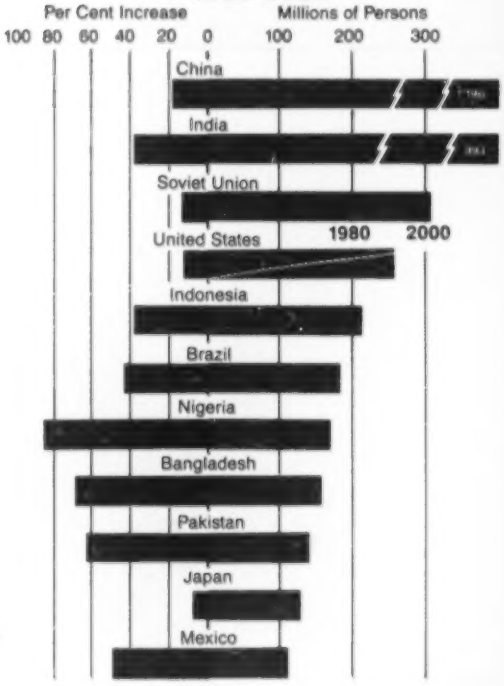
Permanent emigration—which today is small by eighteenth-and nineteeth-century standards— can have only a limited effect on reducing the population pressure in developing countries. According to World Bank estimates, even if 700,000 emigrants from low-income countries (1982 per capita GNP of less than $410) left annually until the year 2000, less than 2 percent of the projected population growth in those countries between 1982 and 2000 would be affected. On the other hand, such immigration would account for 22 percent of the projected population increase in the industrial countries and for 36 percent in the major host countries—Australia, Canada, New Zealand, and the United States.

Sources: United Nations; World Bank

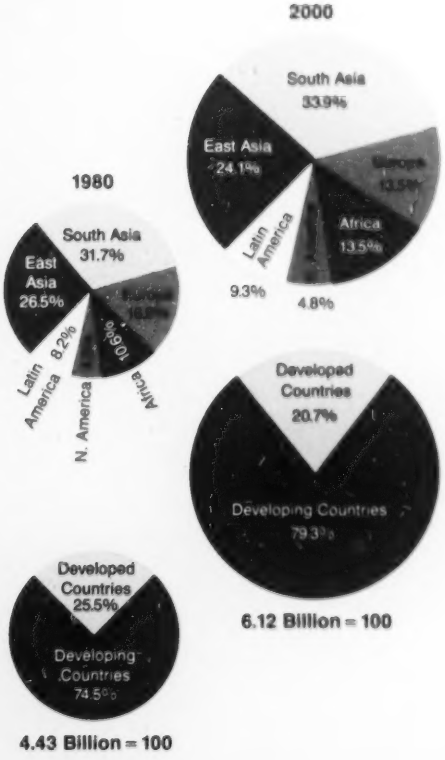
Projected Population Growth



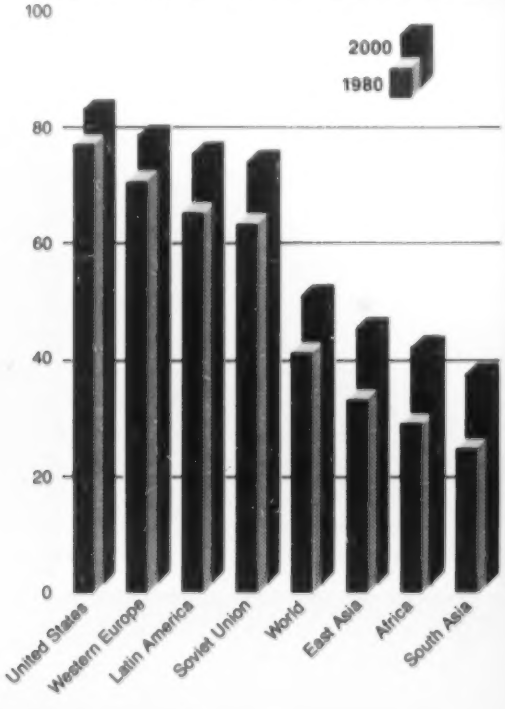
Growth in Selected Countries, 1982-2000



Population Distribution by Major Areas



Urban Population as Percent of Total



Gross National Product

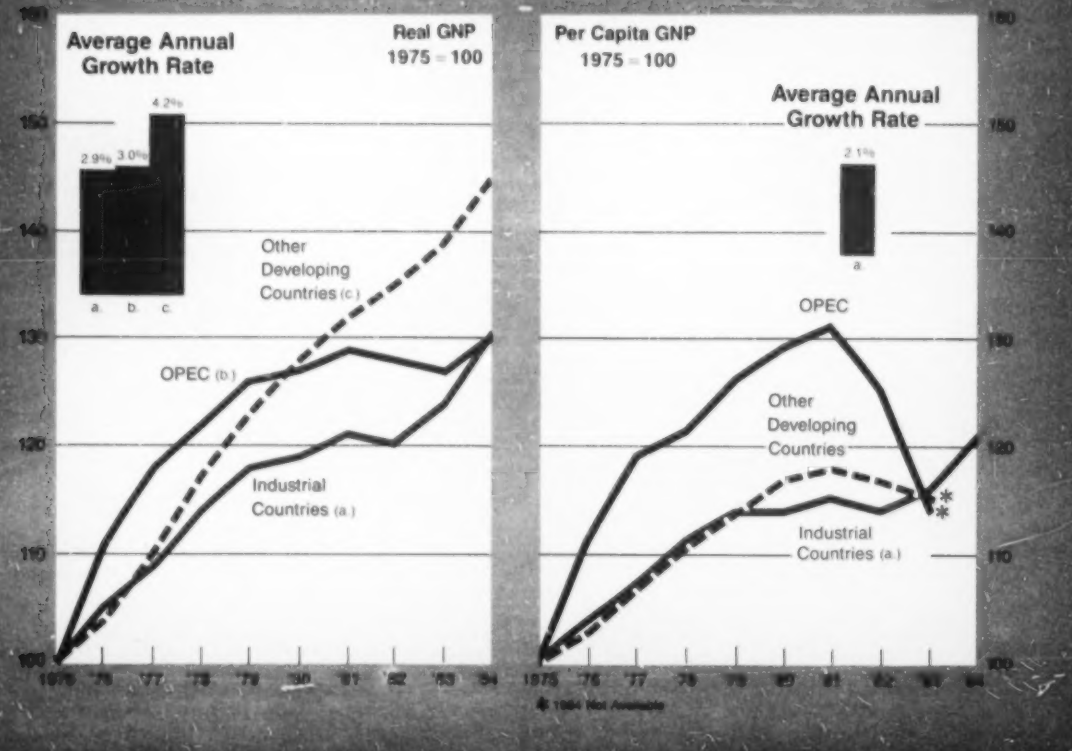
At the beginning of this decade, close to four-fifths of the world's total output was produced in the industrial countries, containing about one-quarter of the world's population. The remaining fifth of world production was shared by the remaining three-quarters of the population. Within this latter group, 5 percent of global output was shared among the 47 percent of population living in low-income countries such as Bangladesh, China, India, Pakistan, and most countries of tropical Africa.

On a per capita basis, GNP increased during the 1972-1983 period at an annual rate of 4 percent or more for countries containing over 1.3 billion people. At that rate, output of goods and services per person would double in approximately 18 years. For countries with a combined population of some 800 million, output per capita rose between 2 and 4 percent annually over the ten-year span. But for some 1.4 billion people, it rose by less than 2 percent a year, while for another quarter billion, mostly in Africa, per capita GNP actually fell.

Although it would appear, therefore, that most people are better off (even if only slightly) than 10 or 15 years ago, for many the actual gains have been small. Moreover, large absolute differences in average income between countries not only have persisted, but have become even larger in some cases.

The World Bank cites the following example: Between 1955 and 1980, GNP per person in the United States grew at an average 2.0 percent a year. In 1980 dollars,

Growth of Output, 1975-84

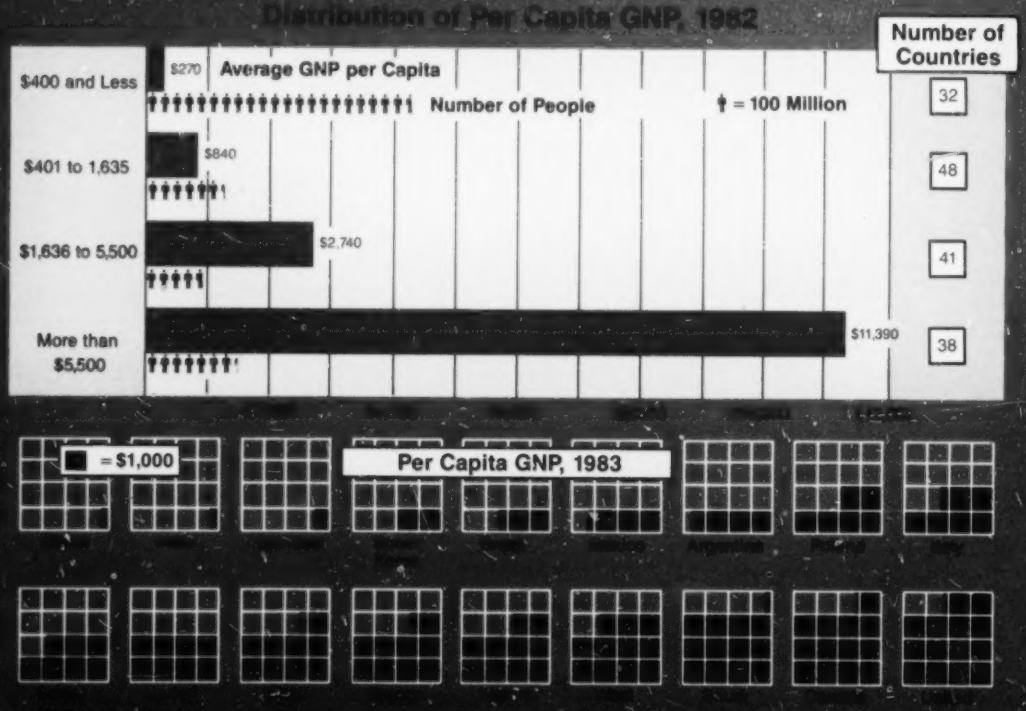


the increase was from $7,030 to $11,560. Over the same period, per capita GNP in India grew at about 1.7 percent annually—but only from $170 to $260 (in 1980 dollars). Thus, the $6,860 gap in per capita income between the two countries in 1955 had almost doubled, to $11,300, by 1980. In fact, U.S. per capita income had risen from 41 times India's to 44 times by the end of the period.

Or put more comprehensively, nearly half the world's population lives in countries having an average 1982 per capita GNP of $270. That is one-fortieth of the average $11,390 for countries holding only one-sixth of the population.

Such comparisons raise statistical difficulties. They do tend to exaggerate the differences between rich and poor countries because both incomes and prices, especially for services, are lower in poor countries—a fact not taken into account by official exchange rates. But even with appropriate adjustments, the World Bank estimates that the per capita income gap between India and the United States increased from almost $5,000 to $8,000 between 1955 and 1980.

Source: World Bank



Standards of Living

Statisticians have yet to develop an indicator, comparable to gross national product, that measures overall social conditions or living standards. On this point, Wilfred Beckerman of Oxford University wrote some years ago: "Questions such as 'Will faster economic growth make society happier?' are not the sort of questions that economists, in their professional capacity, are equipped to answer. . . No science can tell us whether modern man is happier than mankind 100 years ago, or even ten years ago."

Moreover, economic growth, apart from being unable to convey accurately the "quality of life," is likely to involve additional nonmeasurable costs to society in the form of pollution, overcrowding, exploitative advertising, and greater strains on the social fabric. Such side effects, Simon Kuznets of Harvard University declared in his 1971 Nobel Prize lecture, "are of particular interest because they are not reflected in the current measures of economic growth; and the increasing realization of this shortcoming . . . has stimulated lively discussion of the limits and limitations of economic measurement."

Still, there are certain correlations between the state of a country's development and what may be considered a better life. For one thing, greater affluence offers people a chance to work less. In an average week, people in the United States work about 18 fewer hours than do people in Sri Lanka. A country's general health likewise is a function of its wealth. The richer countries were able to push their average life expectancy above 70 years as long ago as the early 1960's. Moreover, in virtually every country the more physicians there are, in proportion to population, the fewer infants die before reaching their first birthday.

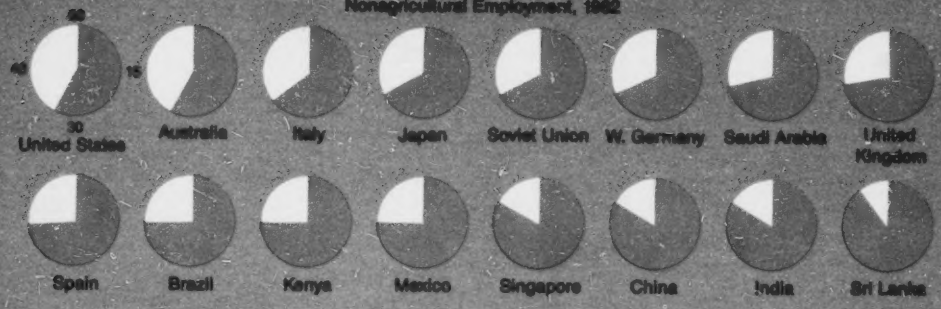
Higher income levels also tend to buy better and higher education. (Primary education now appears to be a reality for most countries. In fact, in many countries with compulsory primary education, enrollment ratios for 6-to-11 year olds often exceed 100 percent of that age group because some pupils are below or above the official primary-school age.) As incomes rise and more and better education is seen as the key to future achievements, families generally tend to send their children to school and to keep them there longer as well. In turn, they will often have fewer children, since schooling itself and loss of children's help is costly.

Yet, in developing countries a disproportionate share of children grow up in large families that are least able to take advantage of both educational opportunities and health services. And, as has been shown, those who receive less schooling will eventually tend to have more children than those who received more and longer schooling. Thus, as the World Bank notes, "from one generation to the next, an unequal distribution of income is caused by and contributes to an unequal distribution of opportunities and skills."

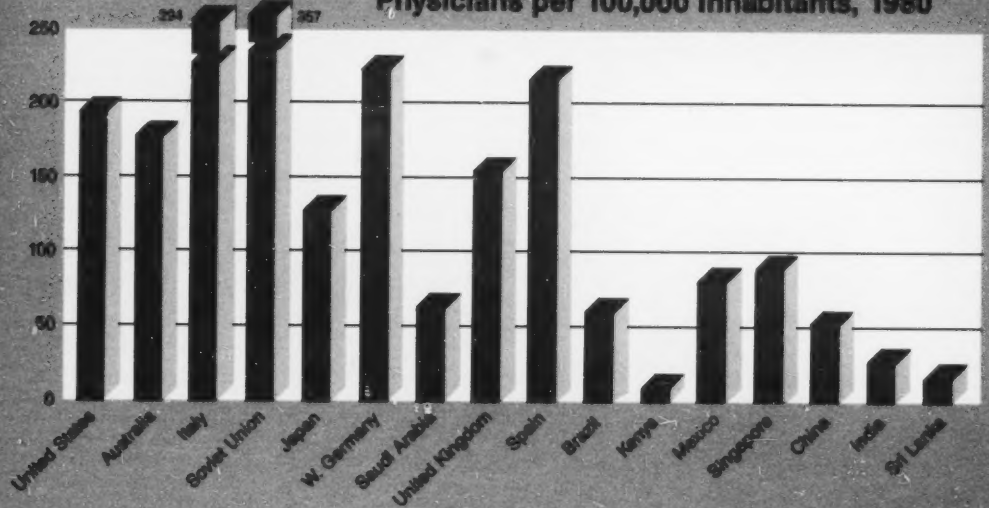
Sources: World Bank; *The Economist*

Average Number of Hours Worked per Week

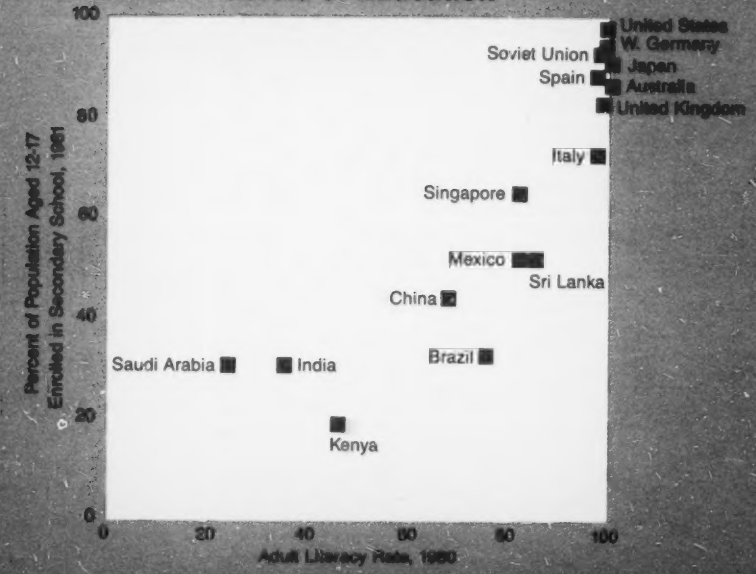
Nonagricultural Employment, 1982



Physicians per 100,000 Inhabitants, 1980



Levels of Education



Labor Force

Longer-range changes in population structure, educational levels, and the mix of economic activity in major regions are foreshadowing significant changes in the world's labor force by the end of this century.

• With prolongation of compulsory schooling and an increase in labor productivity, the length of a man's working life in the industrial countries would, on average, be 43 years and a woman's 27 years (as against 45 and 25 years in 1970). In the developing countries, years of working life will have dropped to 45 and 20 years for males and females, from 49 and 23 years in 1970.

• For the world as a whole, each 1,000 workers would be supporting 1,500 other persons. For the developing countries, this "dependency ratio" is expected to be somewhat more unfavorable—at 1,600 dependents per 1,000 workers. For the industrial countries, the ratio is estimated at 1,240 per 1,000. Among the persons thus supported, there would be less than 700 young people (under 15 years of age) and about 320 old ones (65 years or over) in the industrial countries; in the developing ones, those supported would include 1,100 young ones and 160 old ones.

• Population and labor force will not grow at uniform rates between now and the year 2000. Thus, in both the industrial and the developing countries, the labor force will grow annually by one or two tenths of one percentage point less than population during the 1980's. Between 1990 and 2000, however, the labor forces in both groups of countries will grow annually by slightly more than the population.

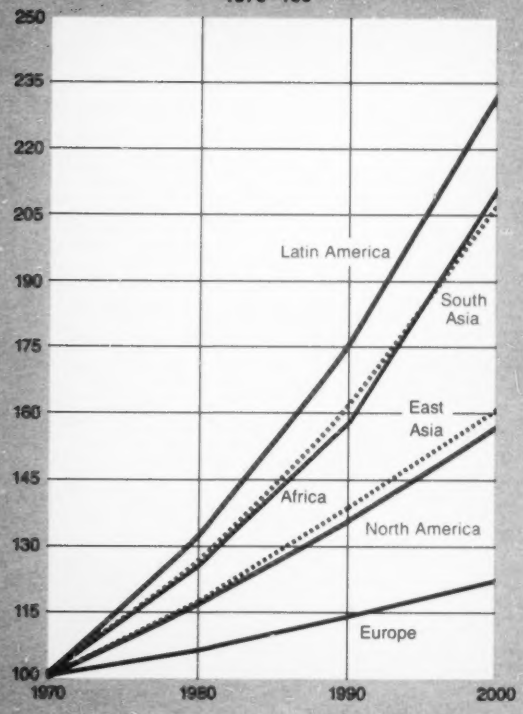
• Between now and the end of the century, the proportion of women in the labor force will be moving in different directions in the two groups of countries. In the developing countries, the gradual decline in the share of agriculture in gross national product means that proportionately fewer women will be employed (312 per 1,000 economically active persons as against 320 in 1980). In the industrial countries, largely because of the rise in the service sector, the reverse will be true, with 392 women per 1,000 workers in 2000 as against 384 in 1980.

• The steady decline in participation rates for younger workers, due to more compulsory schooling and longer school attendence, will delay the average age at which young people enter the labor force. This phenomenon is particularly marked in the developing countries, where the average age of males entering the labor force will rise to 18.0 years in 2000 from 15.4 years thirty years earlier. For the developed countries, the spread is somewhat smaller—19.3 against 17.6 years.

Sources: International Labour Office; World Bank

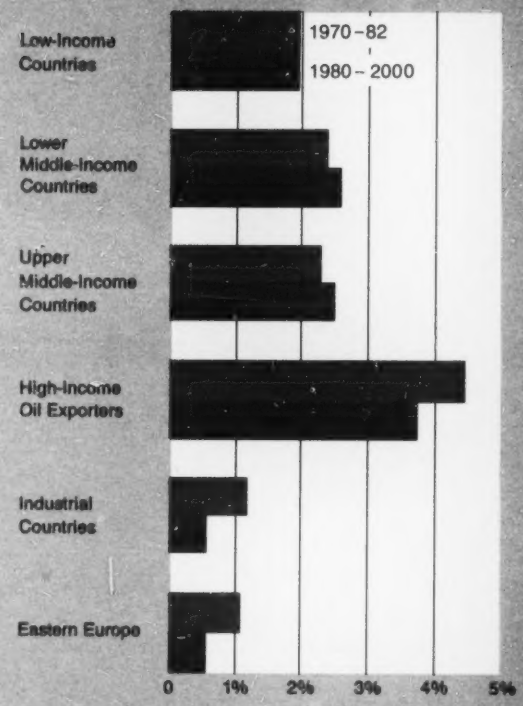
Growth of Labor Force

1970=100



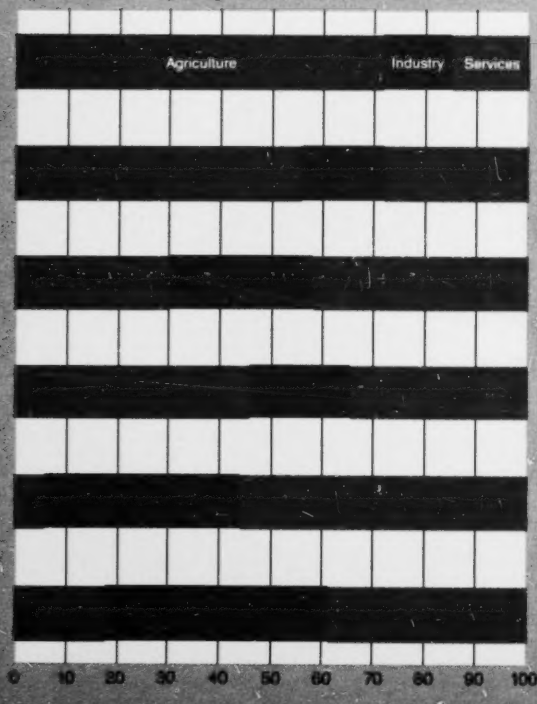
Growth of Labor Force

Average Annual Rate, in Percent

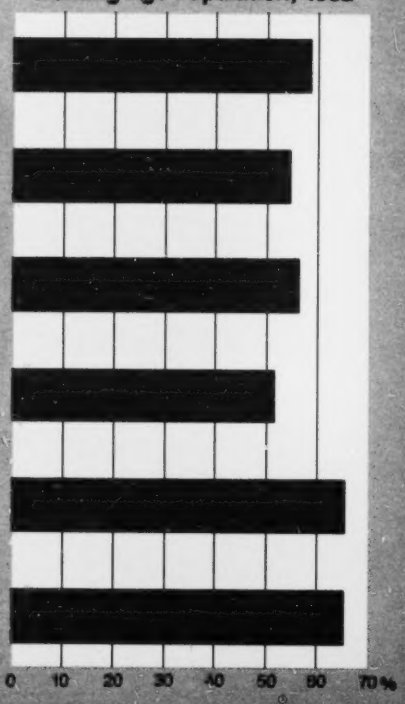


Distribution of Labor Force

By Major Sectors, 1980



As Percent of Working-Age Population, 1982



Inflation

During the recent economic recovery, inflationary trends in the industrial countries have differed considerably from those in the initial years of the recovery of the mid-1970's. After having averaged 8.5 percent annually during the 1980-1982 recession, the rise in the composite GNP deflator of the industrial countries declined to 5 percent in 1983 and to 4 percent in 1984. In the second year of the earlier recovery, the composite GNP deflator had remained as high as 7.75 percent and did not fall significantly from that level in subsequent years. Consumer price inflation has also shown a moderating trend in the recent recovery and has declined markedly from 1980-1981 levels, when it was affected adversely by the higher cost of energy imports. From an average of almost 11 percent in 1980-1981, the rise in consumer prices in the industrial countries as a group fell to 5 percent in 1983 and 4.75 percent in 1984.

A number of factors have contributed to this general improvement in the inflation picture and to the continued outlook for relatively low inflation rates. First, governments in the industrial countries have persistently stressed the goal of greater price stability and, in most cases, have formulated their monetary, fiscal and incomes policies with this goal firmly in mind. Second, in response to a decline in inflationary expectations as well as to persistent unemployment, wage demands have been held down in most industrial countries over the past few years. Combined with a cyclical upswing in productivity growth, unit labor costs in the manufacturing sector of the industrial countries as group rose by only 1.25 percent in 1983 and virtually not at all in 1984. Third, imported raw-material costs have shown less of a tendency to rise during the recent recovery than might have been expected. Basic commodity prices have remained depressed by the high level of international interest rates and by the relatively ample supply of a number of key commodities. It has been conjectured that the recent recovery may have been less "resource intensive" because of the development of new techologies.

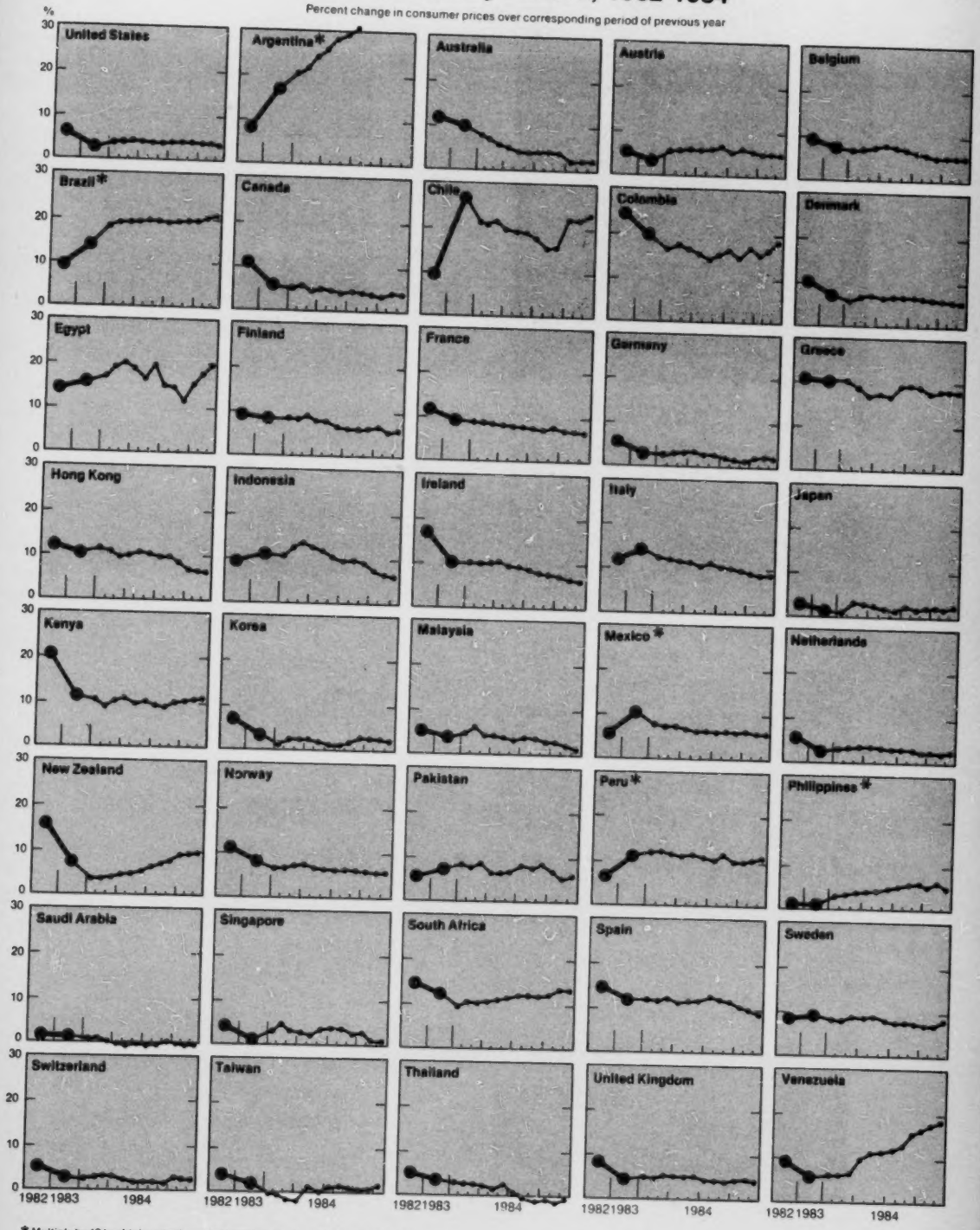
In the developing countries, inflationary trends have been of a dual nature. Inflation has tended to recede in a large number of countries, while it has worsened sharply in a small number of relatively large countries. The median inflation rate for all developing countries peaked at 14.5 percent in 1980, declined to 10 percent by 1983, and has stabilized since then. By contrast, the weighted average for these countries also peaked in 1980—albeit at twice the level of the median—and then receded slightly in the next two years. In 1983, however, this broader measure reached 33 percent and almost 38 percent in 1984.

These divergent trends reflect primarily the inflationary experiences of five countries—Argentina, Bolivia, Brazil, Israel, and Peru—whose composite annual inflation rate rose from about 100 percent in 1981-1982 to almost 260 percent by 1984.

Source: International Monetary Fund.

A Forty-Country Record, 1982-1984

Percent change in consumer prices over corresponding period of previous year



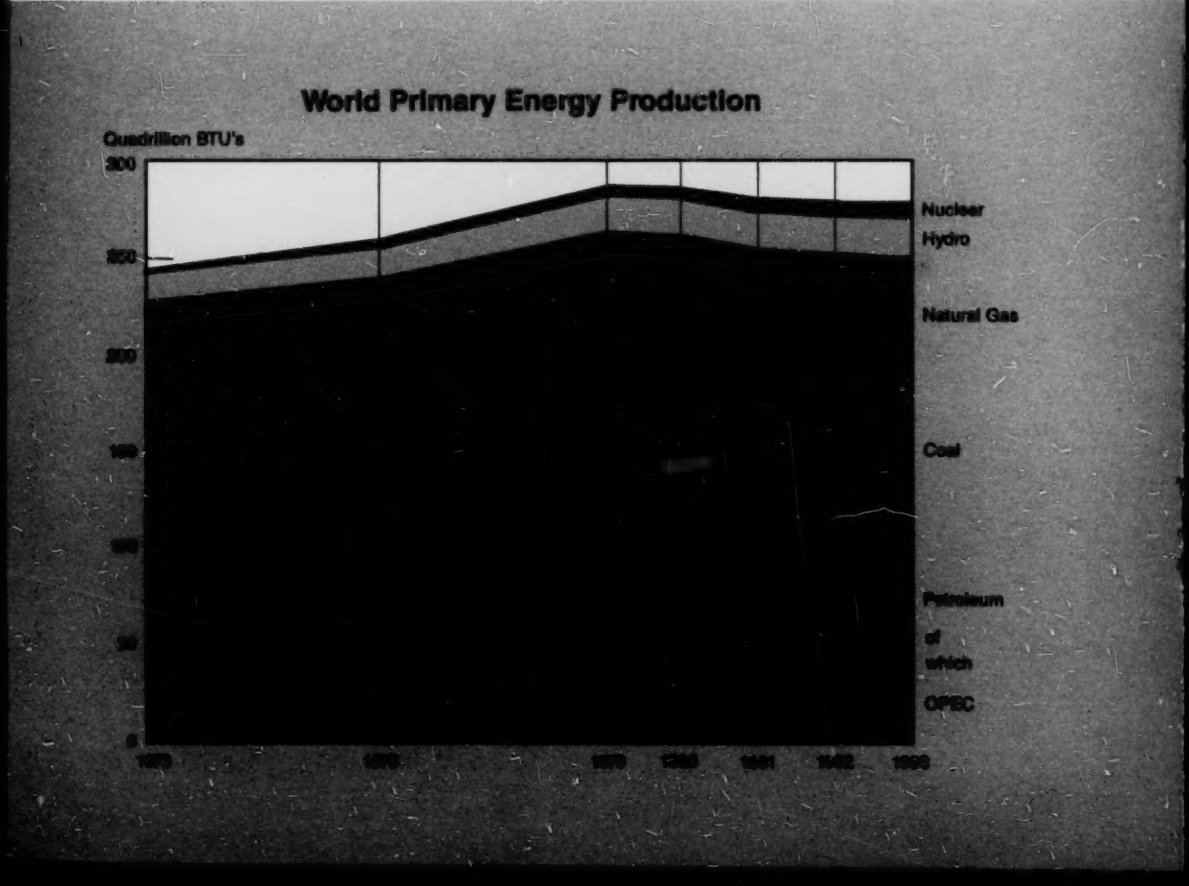
* Multiply by 10 to obtain actual percent increase; for Argentina, multiply by 20.

Energy

The pattern of world energy use shifted dramatically during 1980-1983. After having increased almost continuously for some decades, energy consumption in the industrial countries (which account for close to 80 percent of total consumption in the non-Communist world) declined by about 10 percent between 1979 and 1983. Substantial substitution of nonoil energy sources helped reduce the industrial countries' oil consumption by about 20 percent over the same period. As a result, the share of oil in total primary energy consumption dropped to about 48 percent by 1983—after having already declined from 53.5 percent in 1979.

At the same time, an increase in domestic oil supplies in the industrial countries contributed to a decline of about 40 percent in the volume of those countries' oil imports and to a reduction in their dependence on imported oil from almost two-thirds of oil consumption in 1979 to less than half by 1983. Over the same period, the share of imported oil in total primary energy consumption fell from about one-third to just over one-fifth.

The weakness of energy demand in the industrial countries in this period reflects, in part, the slow growth rates of their economies as well as structural shifts from energy-intensive industrial production toward service and lighter manufacturing activities. The most important factor of course, was the sharp rise in oil prices in 1979-1980, combined with substantial increases in the prices of other energy products. As a result of these developments, the "energy intensity" of total output declined markedly. The overall use of energy per unit of output (as measured by the ratio of total energy consumption to real GNP) fell only by about 1 percent per

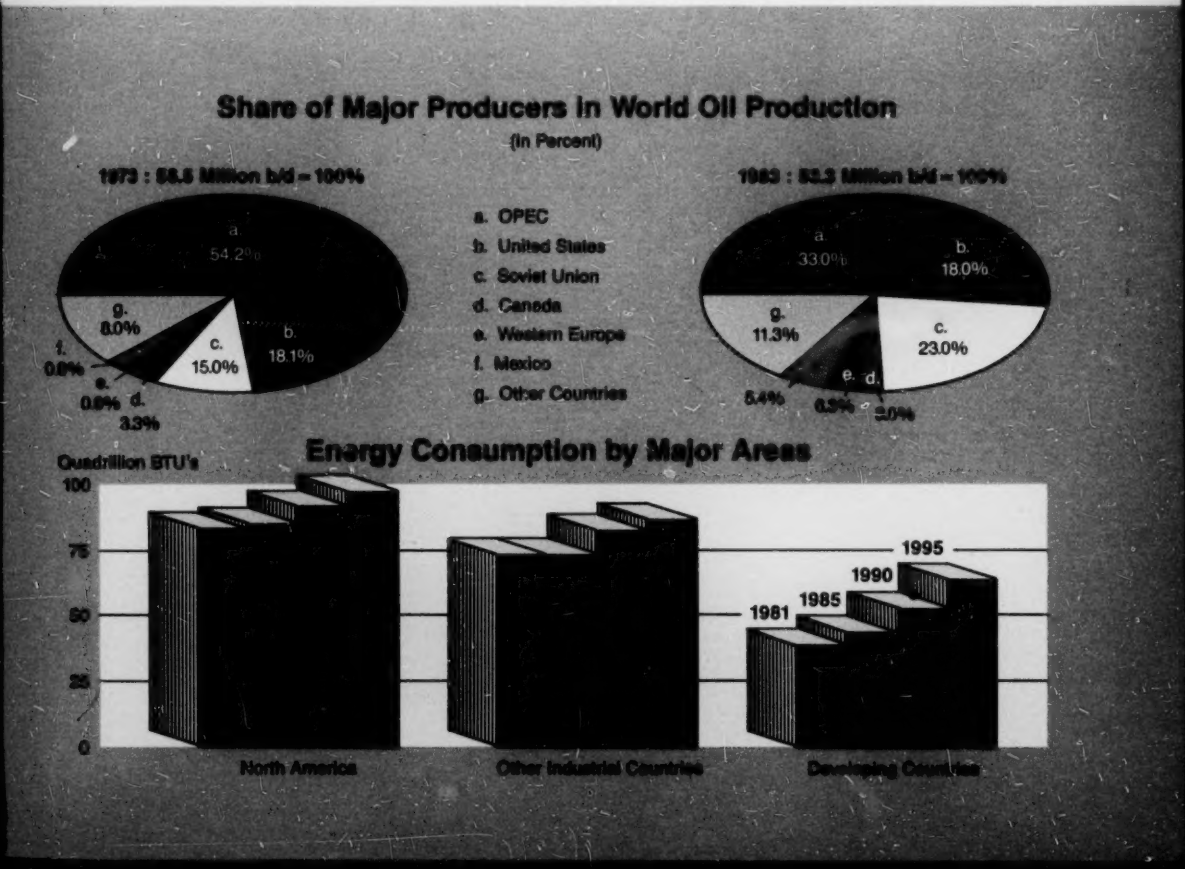


year during 1974-1979. This ratio fell by over 3.5 percent annually in the following four years.

Total primary energy consumption in the non-Communist world picked up again in 1984, and is projected to grow at an average rate of about 2 percent through 1995. Between 1983 and 1995, consumption is projected to grow well above average in the industrial countries of the Pacific (Australia, New Zealand, and Japan) and in the developing countries—by 30 percent and 58 percent, respectively. The LCD's are increasingly approaching the energy consumption habits of the industrial countries as their living standards improve and urbanization continues. This tendency is reinforced by their industrialization efforts, particularly the establishment of energy-intensive basic industries.

Oil's share of total primary energy provided is projected to decline steadily through 1995, from about 48 percent of the total in 1983 to 44 percent by 1995. Increased natural-gas production and exports from Algeria and the Soviet Union will also encourage reduced oil consumption, particularly in Western Europe. The share of natural gas in total energy consumption falls slightly, however, over the projection period, while the combined shares of all other sources—coal, nuclear power, hydro-electric, and geothermal—rise slightly, from 34 percent of the total in 1983 to 39 percent by 1995.

Sources: International Monetary Fund; U.S. Department of Energy.



Technology Transfer

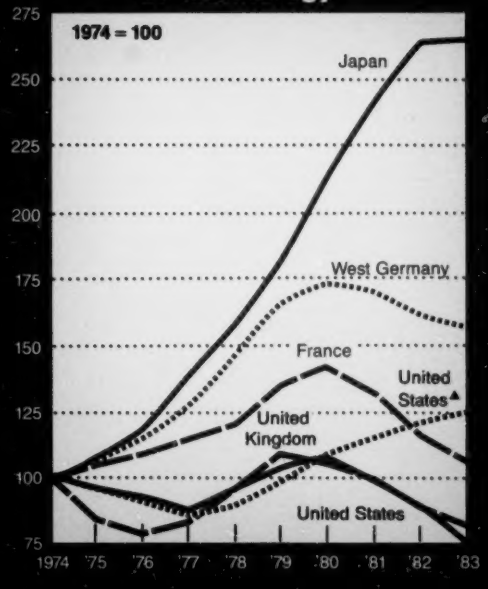
One way of assessing a country's position in international transactions in technology (or "high tech" products) is through an indicator that combines actual trade in such products, foreign direct investment in the technology sector, foreign earnings from patents and licenses, and foreign technical assistance.

On such a broad basis, the experiences of the five major industrial countries—the United States, Japan, Germany, France and the United Kingdom—have been somewhat different over the past ten years or so. With U.S. foreign investment declining sharply (despite the strength of the dollar), the U.S. performance has deteriorated relative to the other four countries. The European countries, on the other hand, have clearly been on the offensive, with direct investment playing a major role in British technological expansion abroad. The structure of Germany's balance of payments in technology reflects the close link between direct investment and the balance on patents, licenses and know-how.

Technical assistance is a form of transmission of technology especially favored by Germany and Japan, whose official bilateral arrangements in this field are similar. For France and the United Kingdom, technical assistance is mostly connected with educational projects in their former areas of influence.

It is worth noting that in the five countries combined the electrical, electronics and communications industries absorb between 20 and 25 percent of corporate R&D expenditures, followed by chemicals and transport equipment. Also indicative of the internationalization of technology is the fact that over the past 20 years

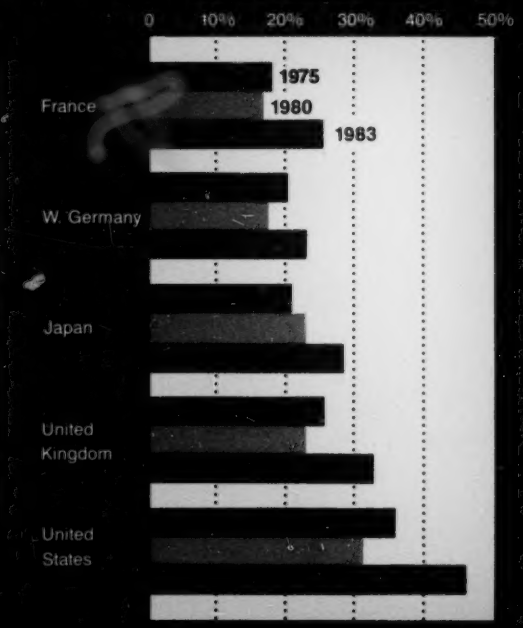
International Expansion of Technology*



* Composite index of four international activities in high technology: exports, direct investment, receipts, and assistance
▲ Excluding direct investment

Technology Content of Exports

(Percent of Exports of Industrial Products)



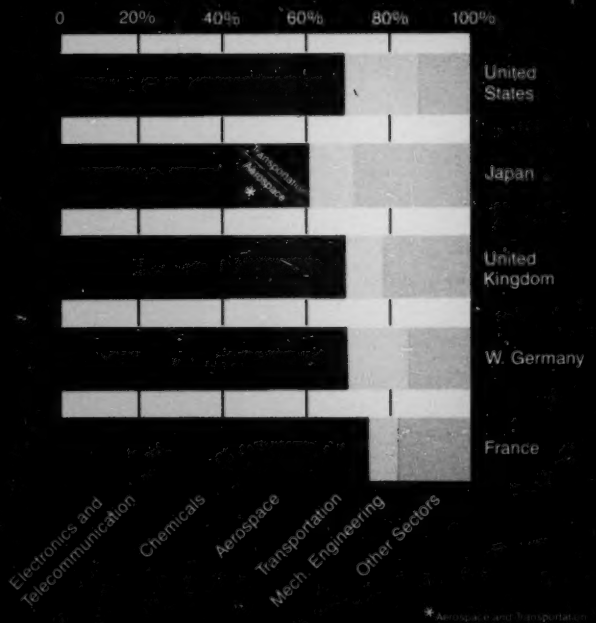
Japan, Germany and the United Kingdom have accounted for about 65 percent of all the patents granted to foreigners in the United States.

The importance of foreign technology to U.S. companies was highlighted by a 1983 Conference Board survey. Almost one-third of the survey participants (164 of 504 respondents) thought that private foreign companies and industrial sectors held technology superior to their own in their particular companies' principal lines of production. Among the larger companies (100 companies with more than $10 million in sales), this belief was held by an even larger proportion (40). Of the 164 companies replying in this fashion, 147 actually mentioned specific industrial sectors, the countries where they believed such superiority existed, and, in some cases, even the names of specific companies whose technology they considered superior in their own sectors.

A fairly recent phenomenon is the transfer of industrial technology from developing countries. This has taken the form of the sale of turnkey plants, supply of consulting services, and direct investment—mostly in other developing countries. India has been the leading exporter of plants, such as power stations and cement, textile and steel mills, while most of the newly industrializing countries have been supplying consulting services in the form of feasibility studies and project supervision.

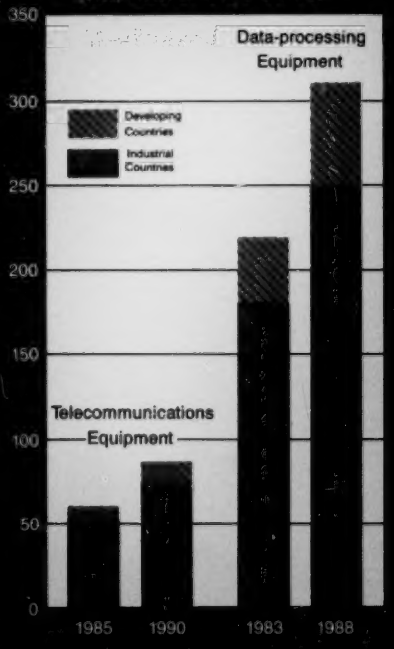
Sources: National Science Foundation; Paribas; The Conference Board; UNCTAD

Corporate R & D Expenditures, 1975-1982



World Value of High-Tech Equipment

(Estimates; Billions of Dollars)

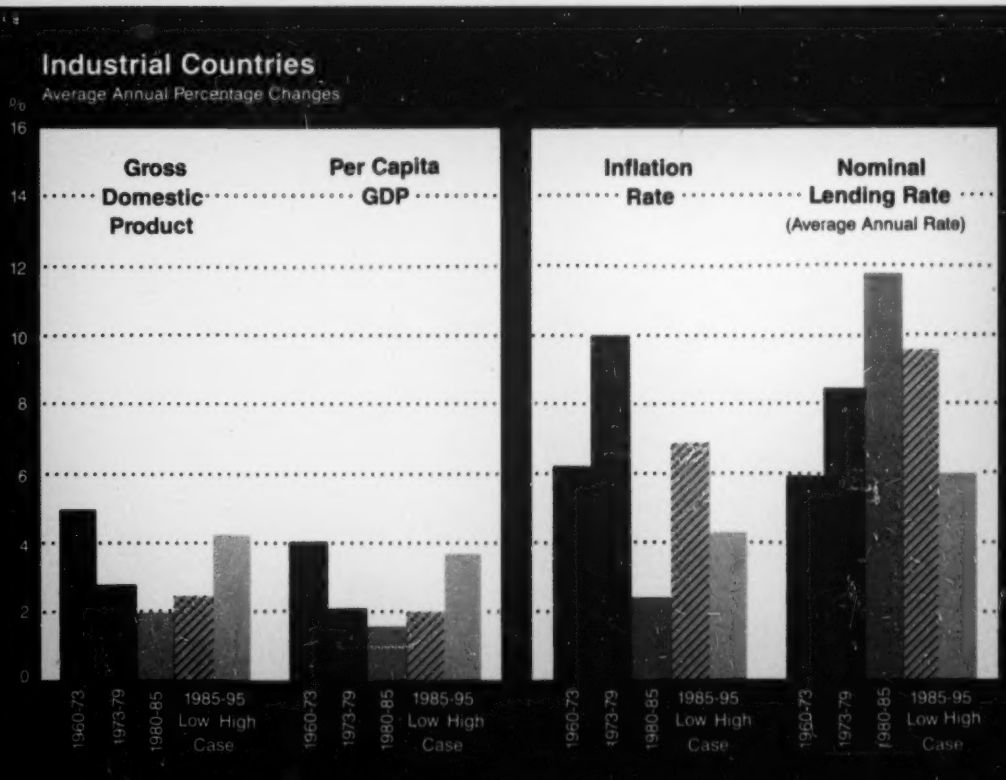


Long-Term Growth Scenario

In its 1984 *World Economic Outlook*, the World Bank developed a scenario "to illustrate the range of possibilities for the world economy in 1985-95." This scenario, which incorporates both a "low case" and a "high case," is not a prediction as such, since the actual outcome depends very much on the policies adopted in both the industrial and the developing countries. Nor does it—indeed, it could not—allow for any exogenous shock to the world economy, such as another disruption in energy supplies.

The "low case" indicates what would happen if the industrial countries were unable to improve on their economic performance of the past ten years. Their real growth would average 2.5 percent annually; inflation would be hard to control; and budget deficits and unemployment would remain high. Such a scenario assumes continued inflexibility in the industrial countries' economies, especially in their labor markets; further upward pressures on public expenditures; and, hence, higher taxes and episodes of inflationary financing.

The "high case," on the other hand, postulates that the industrial countries greatly improve their economic performance, perhaps to the extent of recapturing the productivity growth and high employment levels achieved in the 1950's and 1960's. The World Bank sees little evidence that they might be prevented from doing so by a slackening of technological progress. "On the contrary," the Bank notes, "in some fields—telecommunications, electronics, biotechnology—the pace of technical change appears to be accelerating." Therefore, faster growth would depend on tackling the various problems that beset the industrial countries in the



1970's. Under these circumstances, the Bank projects real growth at 4.3 percent a year, with a steady decline in unemployment, and inflation averaging 3.5 percent (at present exchange rates). In addition, budget deficits could be pared, first as a percentage of GNP and then in absolute terms. Nominal interest rates would fluctuate around 6 percent.

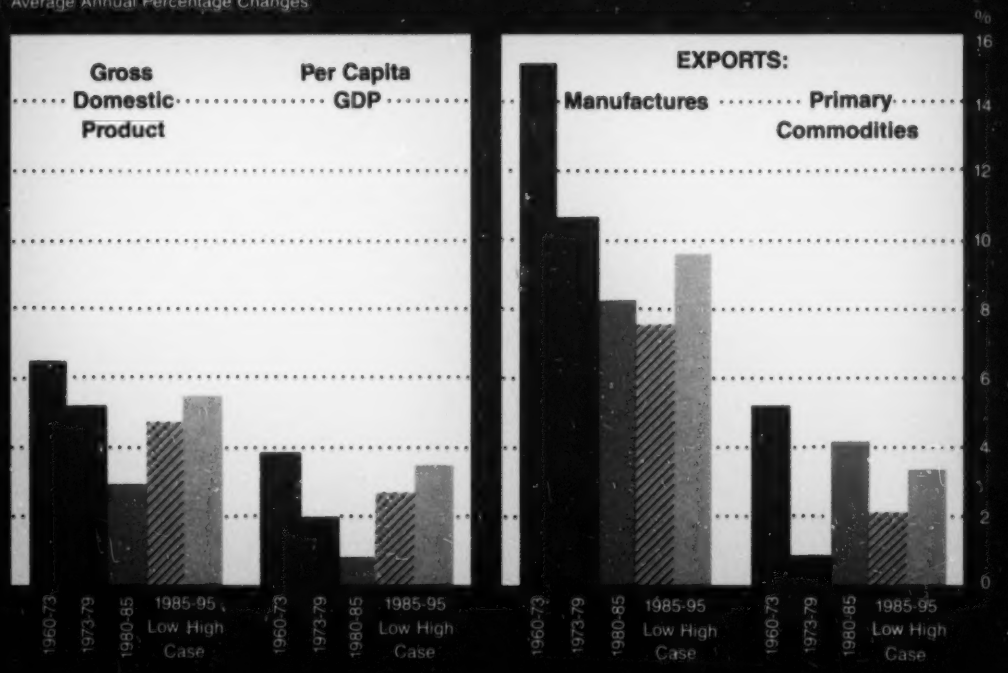
If the low case should prevail, growth in the developing countries would be held to 4.7 percent a year, and to only 2.7 percent in per capita terms. Moreover, there are considerable differences in conditions within the Third World—the so-called low-income countries in Africa would experience an actual decline in per capita income. Exports of manufactures from the developing countries as a whole still would grow at a reasonable rate, largely in line with those countries' supply capacities. But their exports of primary products, which depend greatly on the level of economic activity in the industrial economies, would grow more slowly than the growth in the latter.

The high case, on the other hand, brings with it greatly improved prospects for the developing countries. Their economies would grow at about 5.5 percent a year, almost as fast as the 1960's average, and by 3.5 percent in per capita terms. In addition, they would be able to receive somewhat more favorable prices for a larger volume of exports and, at the same time, be able to obtain credit at lower interest rates.

Source: World Bank

Developing Countries

Average Annual Percentage Changes



World Trade

In 1983, the value of world trade declined for the third consecutive year. The decrease of about 2 percent was more moderate than in 1982. Still, world trade contracted by more than 10 percent in value during the 1981-1983 period, when the world economy was plagued by the severest recession since the 1930's. (With trade measured in dollars, part of this decline is, of course, attributable to the sharp rise in the dollar against other currencies over this period.)

Trade recovered in 1984 when, despite rising protectionist sentiment, world exports (including those of the Soviet bloc) rose by 6.5 percent, to $1.9 trillion. In terms of volume, world trade reached a record high in 1984, according to the annual survey by the General Agreement on Tariffs and Trade (GATT), registering a 9-percent gain over 1983.

World exports of agriculture and mineral products each grew by about 5 percent in 1984, while trade in manufactured goods expanded by a healthy 12 percent for the industrial countries, and by 14 percent for the developing ones. In 1984, Japan became the world's largest exporter of manufactured goods, replacing West Germany, which had held that position since 1970.

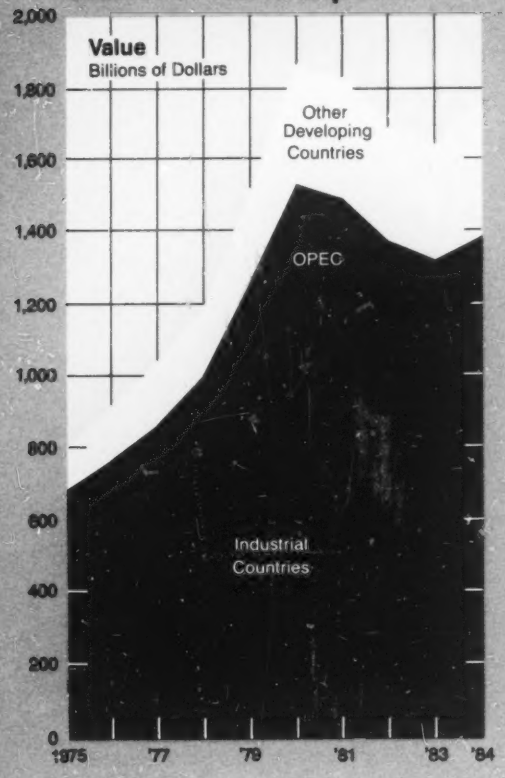
According to the GATT report, the 1984 growth in trade volume was the salient feature of the world wide economic recovery—although that growth was less rapid than during the recovery of 1968 but about the same as during the 1976 recovery. In fact, total world trade grew more slowly per unit of increase in world output between 1979 and 1984, compared with 1964-1973 and 1973-1979. On the other hand, the strength of the growth in manufactures trade showed little change over the three cycles.

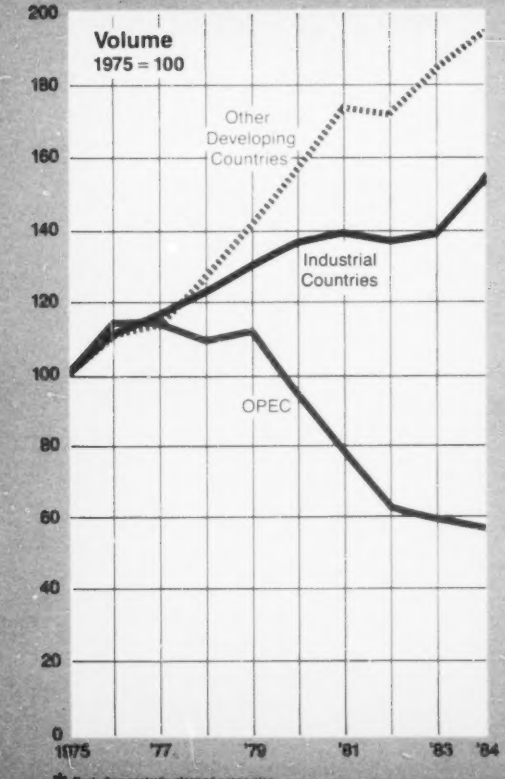
In the recent recovery, imports into North America accounted for nearly two-thirds of the rise in the dollar value of world trade, with U.S. imports alone accounting for over half the 1984 trade increase; the share of Western European imports in that increase was less than 13 percent. In addition, there was a sizable increase in the share of developing countries (other than the members of OPEC)—particularly Southeast Asia—in the growth of world exports and imports. This included a marked rise in trade among the developing countries themselves (or "South-South trade").

Sixteen major debtors among the developing countries were able to boost their exports by 12 percent in 1984, while their imports continued to decline. The net result was an increase in those countries' combined trade surplus to between $35 billion and $40 billion, or twice the surplus attained in 1983. These countries—for which 1984 afforded a "welcome breathing space," in the words of GATT—thus continued to switch from what the IMF has termed their earlier "import-compression phase" of 1981-1982 to an "export-expansion phase," which coincided roughly with the beginning of the economic recovery in the United States.

Sources: GATT; International Monetary Fund

Growth of World Exports*

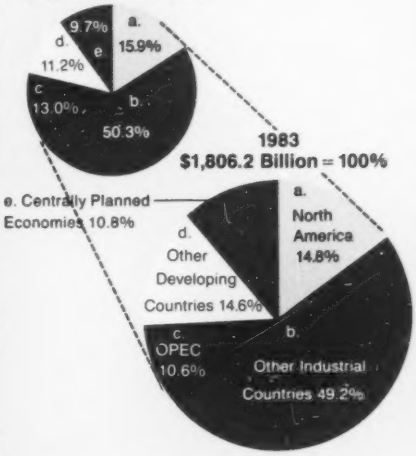




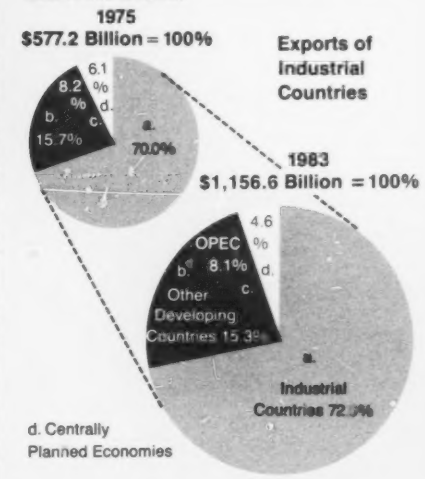
* Excluding centrally planned economies

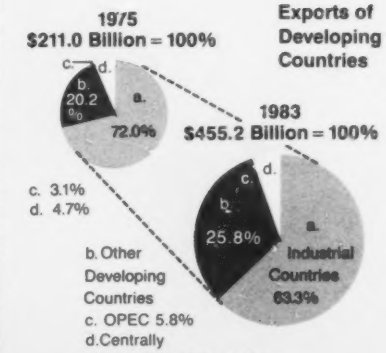
World Exports by Origin and Destination, 1975 and 1983

ORIGIN:



DESTINATION:





Trade and Economic Activity

Some of the major shifts in international trade over the past few years have mirrored the ups and downs in economic activity in the major trading countries. Conversely, trade itself can be a dynamic source of economic growth. From 1950 through 1975, for instance, the industrial countries' merchandise trade grew at an average annual rate of 8 percent, thereby contributing to an average annual growth rate of 4 percent for these economies.

There is, in fact, an accelerating feature in the relation between trade and growth, since imports generally are highly responsive to growth in incomes. It has been estimated that if economic activity within the OECD is rising by more than 1.5 to 2.0 percent annually, those 24 countries' non-oil imports will grow about three times as fast. When annual growth for the group falls below 1.5 percent, trade tends to decline moderately. And when OECD growth is flat, non-oil trade declines by about 5 percent. This negative spiral was very much in evidence during the 1981-1982 recession, leading some observers to recall the sharp shrinkage of world trade during the depression of the 1930's.

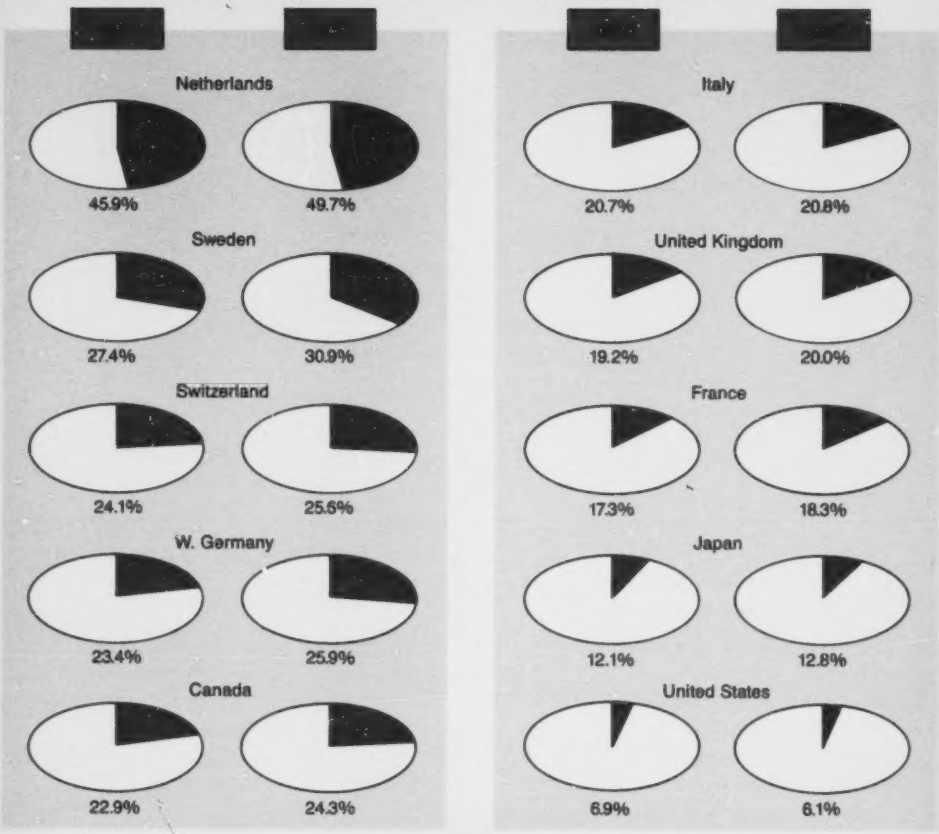
While the United States occupies the key spot in this environment of trade and economic activity, it is interesting to note that in recent years its position in world trade has nevertheless declined, mainly as a result of the strong dollar. In fact, the proportion of total U.S. output that is exported—which is about one-half the ratio for Japan, one-third that for the United Kingdom, and one-fourth that of Germany—is now smaller than ten years ago. As has been stressed by many, the importance of foreign trade to the U.S. economy is thus way out of proportion to the role that the dollar occupies in the international financial area as the world's major trading, reserve and investment currency.

For many developing countries, "dependence on trade" often means that a major proportion of their exports consists of one or several key commodities, making export earnings highly dependent on fluctuations in world commodity prices. Five international commodity agreements with market-intervention provisions are currently in operation, covering sugar, natural rubber, tin, cocoa and coffee. While the agreements on rubber, tin and coffee are considered to have achieved their price objectives to varying degrees, the five commodities covered by these agreements accounted for only 35 percent of the earnings of the developing countries from non-oil commodity exports during 1978-1981.

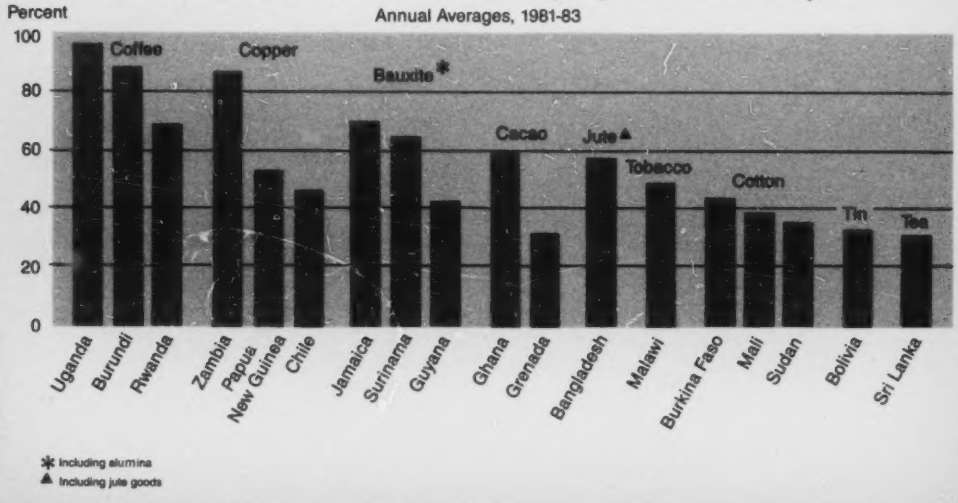
Three of the commodities—sugar, tin and rubber—are eligible for financing under the IMF's buffer stock-financing facility. Such financing—up to 45 percent of a Fund member's quota—is available to countries in balance-of-payments difficulties to help finance their contributions to buffer stocks.

Source: International Monetary Fund; UNCTAD

Merchandise Exports as Percent of Gross National Product



Commodities as Percent of Developing Countries' Exports



International Payments

One of the most noteworthy developments of the past few years has been the reduction in the large external payments imbalances of the major country groups.

Following a $70-billion shift into deficit between 1978 and 1980 as a result of the 1979-1980 oil price increase, the combined current-account position of the *industrial countries* achieved approximate balance in 1981. That position was maintained throughout 1982 and 1983, when cuts in those countries' oil imports more than offset the decline in their exports to developing countries. However, that balance was projected to deteriorate once more for the group as a whole in 1985, as it had in 1984.

This development is attributable largely to trade in oil, with an estimated deficit on oil alone of some $10 billion in 1984, and a somewhat larger deficit in 1985. Among the major oil importers, the largest increases in net payments for oil are projected for the United States, Canada and Japan, with the rise in the demand for oil in all three countries associated both with continued growth in output and the decline in oil prices.

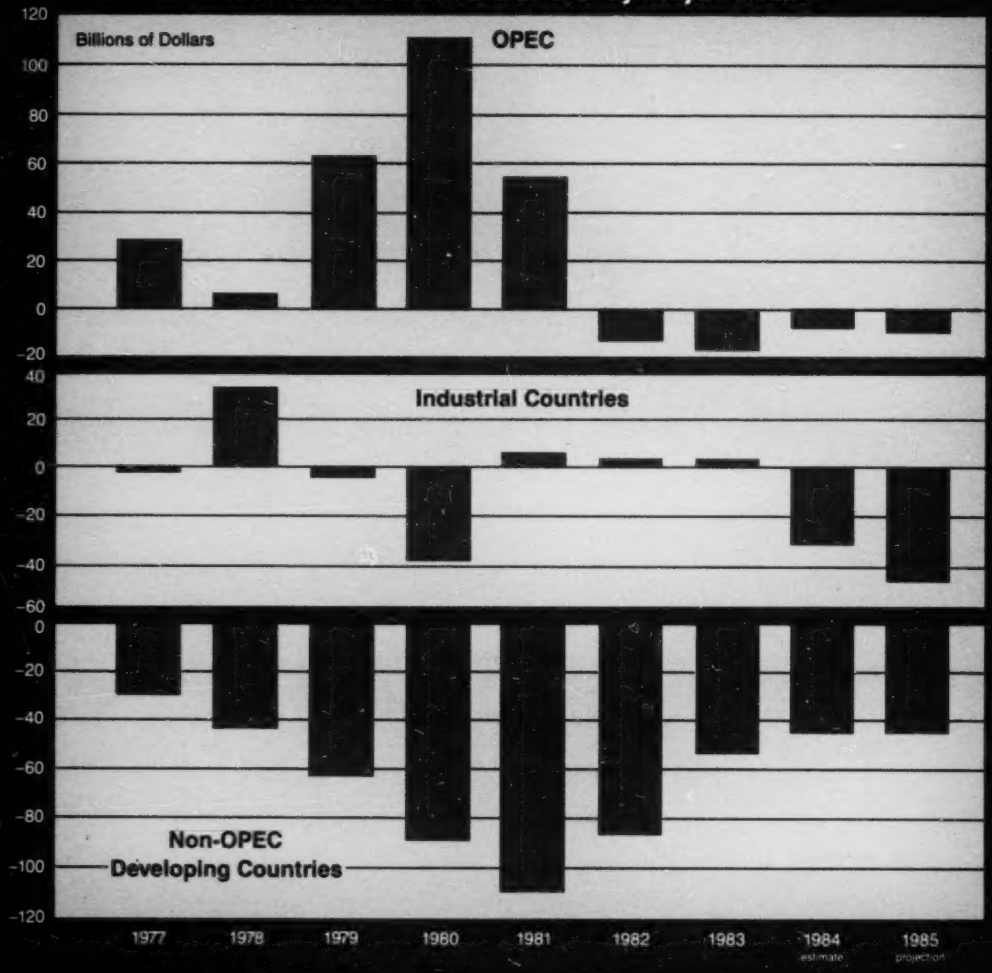
Of course the overall payments situation of the industrial countries masks the extremely sharp deterioration of the external accounts of the United States, from a small surplus in 1981 to deficits of $42 billion and $102 billion in 1983 and 1984, respectively. Given the deterioration in U.S. competitiveness because of the continued appreciation of the dollar—at least through early 1985—plus the somewhat faster rate of economic recovery in the United States relative to the rest of the industrial countries, the U.S. payments deficit is expected to widen further in 1985.

For the *non-OPEC developing countries*, the turnaround has been even more dramatic. As a result of the rise in oil prices, the recession-induced loss in export earnings, and the sharp rise in interest rates, the payments deficit of that group of countries had risen from $42 billion in 1978 to $109 billion in 1981. This alarmingly large deficit prompted a serious reappraisal of the external positions and the domestic economic programs of many of those countries, especially on the part of their major creditors. As a result of widespread retrenchment measures (as well as the absence of further external shocks), the group was able to reduce its combined deficit by more than half, to $53 billion in 1984. For 1985, the deficit is expected to stay at about $45 billion. Such a magnitude would represent just over 8 percent of those countries' total exports of goods and services, as against 24 percent in 1981. On that basis, the IMF notes, "prospective deficits among the non-oil developing countries are the lowest in at least 20 years."

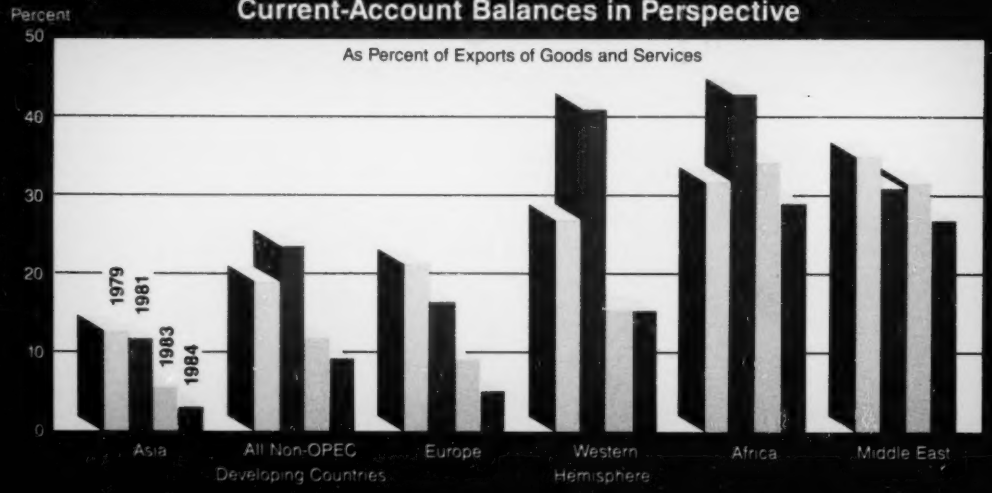
The shift from large external surpluses to small deficits in 1982 and 1983 for the *OPEC countries* reflects not only the decline in world oil consumption and the associated downward adjustments in oil prices, but also continuing gains in market shares by non-OPEC producers. However, two smaller OPEC members, Kuwait and the United Arab Emirates, have continued in surplus because their investment income is fairly large relative to their import needs.

Sources: International Monetary Fund

Current Account Balances by Major Areas



Non-OPEC Developing Countries' Current-Account Balances in Perspective



International Reserves

It was generally believed that the transition to a system of floating exchange rates in the early 1970's would bring important changes in the role and function of international reserves. Contrary to expectations, however, that changeover has not led to any marked decline in the demand for official reserves.

The need for international liquidity may be reduced by floating rates to the extent that external adjustment is borne by the exchange rate. But it may also be increased by greater responsiveness of international capital flows to interest-rate differentials between countries, by sharper exchange rate fluctuations, and by greater uncertainty in world financial markets. These various factors affect the attractiveness of the assets and liabilities available for financing external imbalances and may, therefore, add to the difficulty of measuring the "adequacy" of international liquidity.

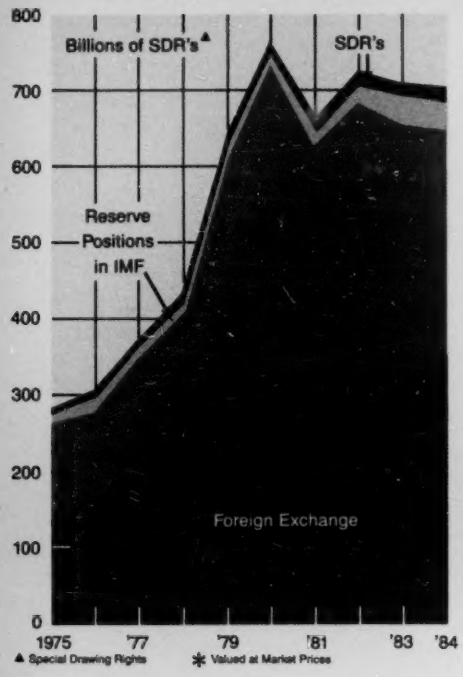
According to a traditional rule of thumb, a country's official international reserves should equal 25 percent of its annual merchandise imports (i.e., cover 13 weeks of imports). Such a rule, however, can be only a rough guideline at best. In today's complex world, a country's international liquidity needs are determined by a number of different factors.

In addition to the size of the country's foreign trade sector, these include the variability of its revenues from major commodity exports (such as oil), the volume of its services trade, and the importance of capital movements. Exchange-market intervention, which some central banks have practiced on a sizable scale, also requires an "adequate" supply of reserves. Generally speaking, a country that aims at relative exchange-rate stability or is a member of a fixed-rate arrangement, such as the European Monetary System, will need a higher level of reserves than a country that attaches less importance to the external value of its currency.

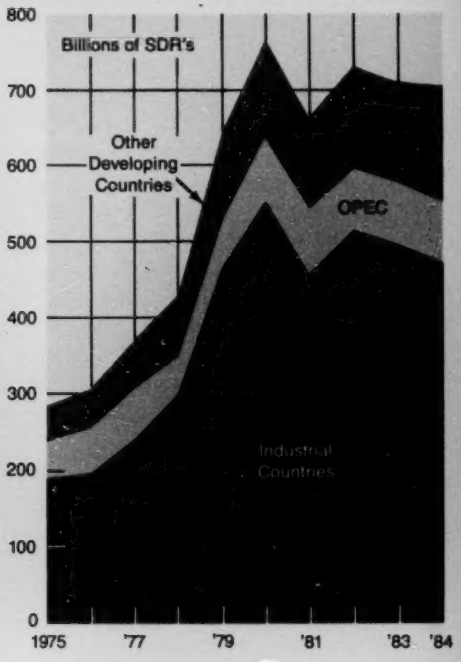
In recent years, the question of the supply and adequacy of international reserves has been receiving renewed attention for a number of reasons: First, the international debt crisis of the early 1980's was regarded by some observers as little more than a liquidity crisis. Second, there has been concern about the uneven and often unpredictable growth of international liquidity, which depends to a large degree on the strength or weakness of the U.S. dollar. Third, there is a general unease in many quarters about the current international financial system, with frequent calls for a fundamental reform of the system. Such a reform—mentioned most recently at the May, 1985, economic summit meeting in Bonn—would have to include some mechanism for assuring a steady supply of international liquidity.

Source: International Monetary Fund; *The Banker*

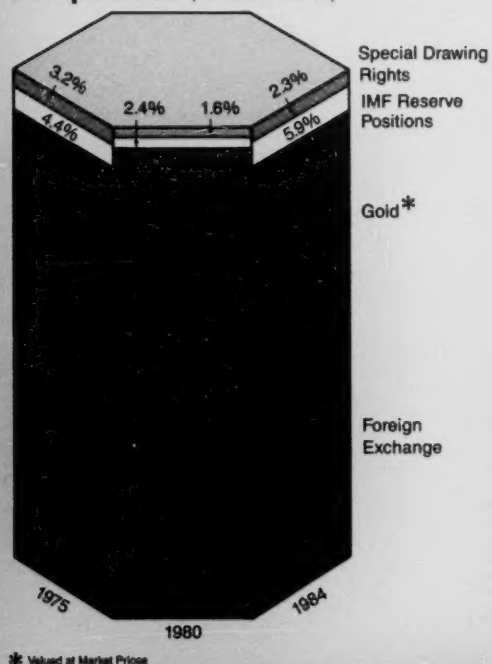
Growth, by Categories



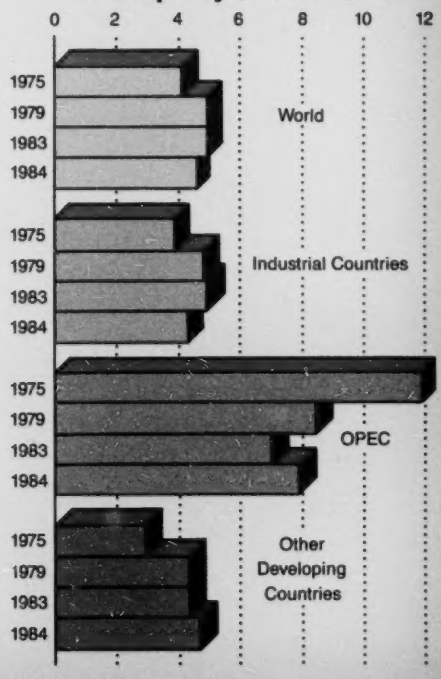
Growth, by Country Groups



Composition (Billions of SDR's)



Adequacy (Months of Imports)



Financial Flows to Developing Countries

In recent years, most of the variation in the flow of financial resources to the developing world has occurred in private-sector flows and, therefore, has affected mainly the more advanced among the developing countries. The bulk of the financing available to the poorer developing countries comes from bilateral aid programs of the 17 members of the Development Assistance Committee (DAC) and from multilateral and other officially sponsored sources. These major official elements in resources flows have remained stable since 1981.

Major private-sector flows are essentially determined by world-wide economic and financial conditions. Official development assistance, on the other hand, is largely politically determined and is made available under existing institutional arrangements. OPEC aid is considered an intermediate case: While it, too, is determined by certain institutional and political mechanisms, its emergence has reflected to a large degree the economic and financial events of the 1970's, in particular the accumulation of OPEC's external surpluses.

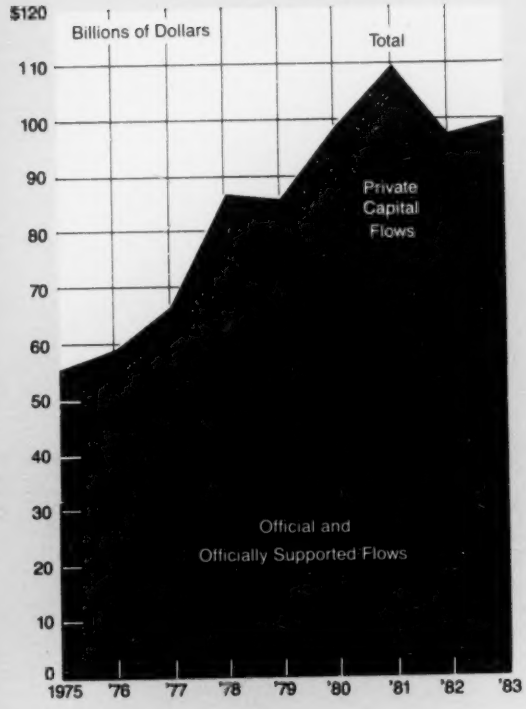
With total resource flows dominated by private-sector flows, including bank lending and direct investment, the drop in this component between 1981 and 1983 is clearly related to the contraction of imports by those developing countries that adopted retrenchment measures affecting their domestic economic activity. These flows can, therefore, be expected to increase again as the debt and financial situation of the developing countries improves. A number of experts, including President Reagan's Task Force on International Private Enterprise, has strongly advocated that private investment should be encouraged in lieu of official aid.

In retrospect, given the nature of and the reasons for the fairly large private financial flows of recent years, the Development Assistance Committee feels that it is not possible "to judge the expansion of total resource flows in the late 1970's as unambiguously a 'good thing.'" The level of private financing in 1980—which in *real* terms was 44 percent above the previous year's level—and the resulting external imbalances of many of the major borrowing countries were clearly unsustainable.

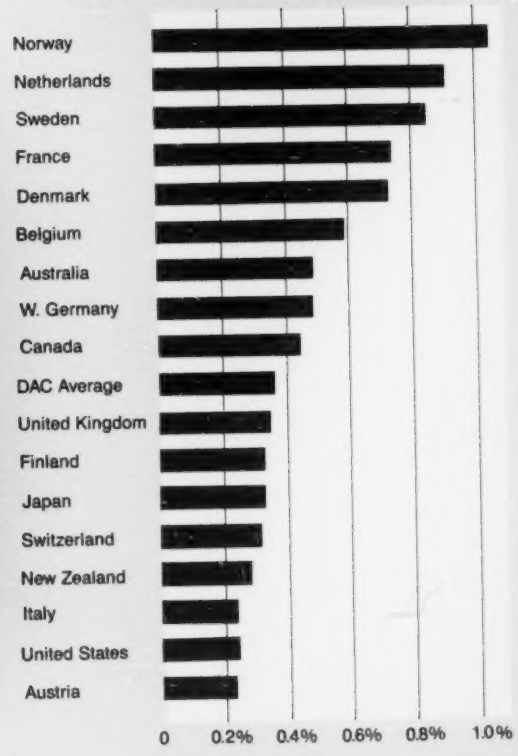
It has also been argued that official development assistance has been "too inelastic": that the institutional mechanisms determining the volume of such assistance are too unresponsive to the exigencies of the actual situation. There is, indeed, a groundswell of opinion that official institutions, including the International Monetary Fund and the World Bank, should take a stronger role in channeling funds to the developing world. One recent study, by the Washington-based Institute for International Economics, argues that the Bank should be more generous in its lending activities and in taking part in co-financing schemes with private banks, while the Fund should set up a special facility to assist countries in meeting debt-service costs when interest rates rise above a given base-period level.

Source: Development Assistance Committee

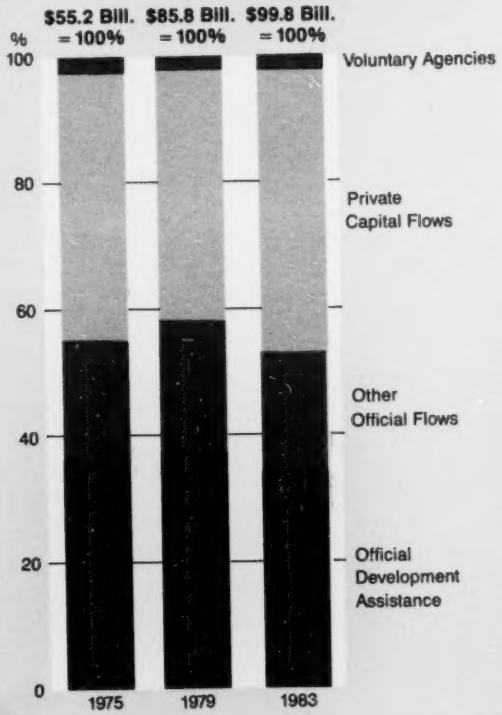
Total Flows (Net)



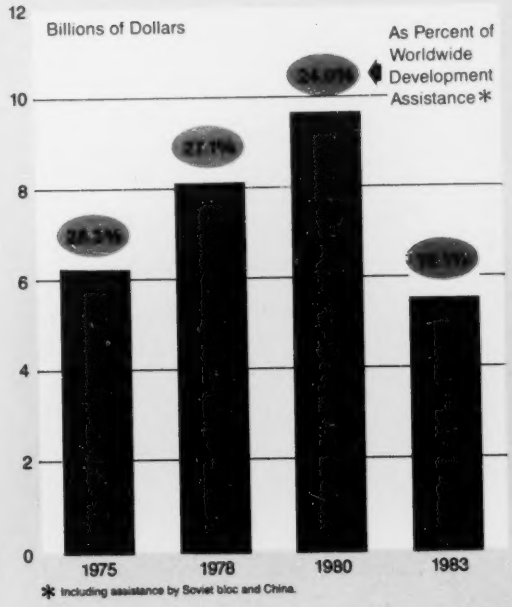
Official DAC Development Assistance as Percent of Gross National Product, 1983



Type of Flows



Official Development Assistance by OPEC



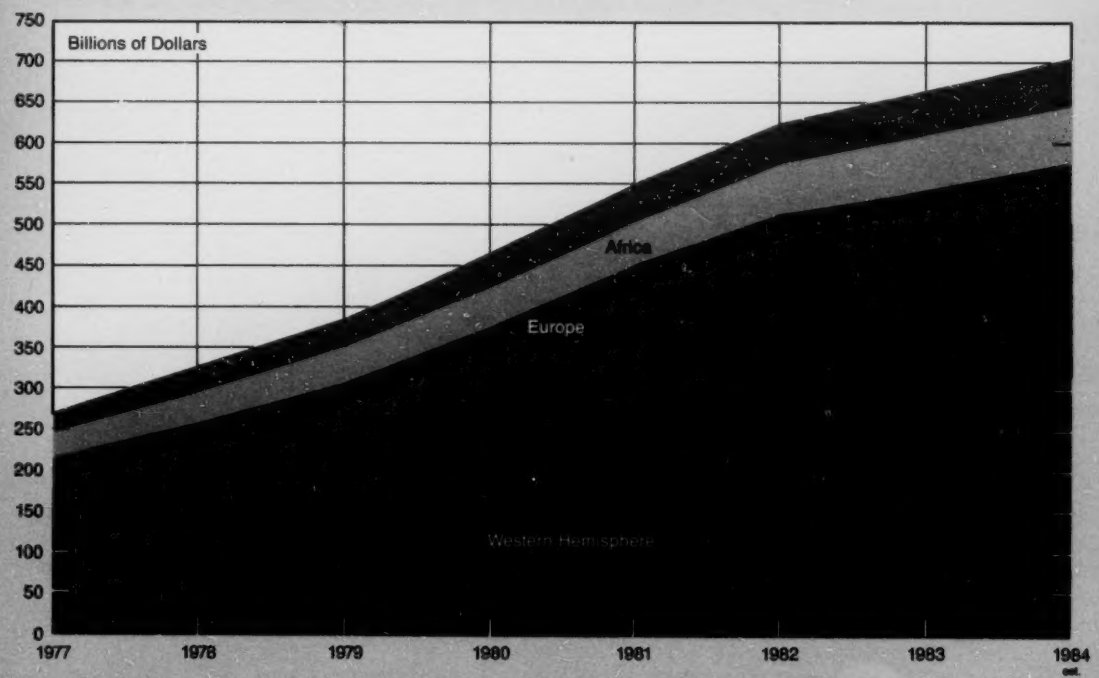
External Debt of Developing Countries

Given the flexible and imaginative ways in which the debt-servicing problems of the developing countries were handled in the past few years, the World Bank has concluded that "an inherent property of durable structures is that they flex and do not break."

In fact, the ramifications of the severe financing difficulties of the biggest borrowers among the develop:ng countries have been dealt with more successfully than was held possible when Mexico first interrupted full servicing of its external debt in August, 1982. Since then, several major debtors have made an impressive start toward alleviating their external positions and resuming full debt service. In addition, in 1984 the major banks agreed to reschedule debt maturing over several years for those countries that were pursuing the appropriate domestic adjustment policies. International institutions, including the newly created Institute of International Finance, have promoted closer cooperation and greater exchange of information between debtors and their creditors.

A further easing of the debt situation hinges on two questions. The immediate question is whether the worldwide economic recovery will lead to sufficiently rapid and sustained growth in the industrial countries to permit continued expansion of world trade. The other question is whether those countries will adopt policies that in the medium term will lead to lower interest rates and expanding flows of private capital to the developing world. While the IMF expects that direct investment in the

External Debt of Non-OPEC Developing Countries



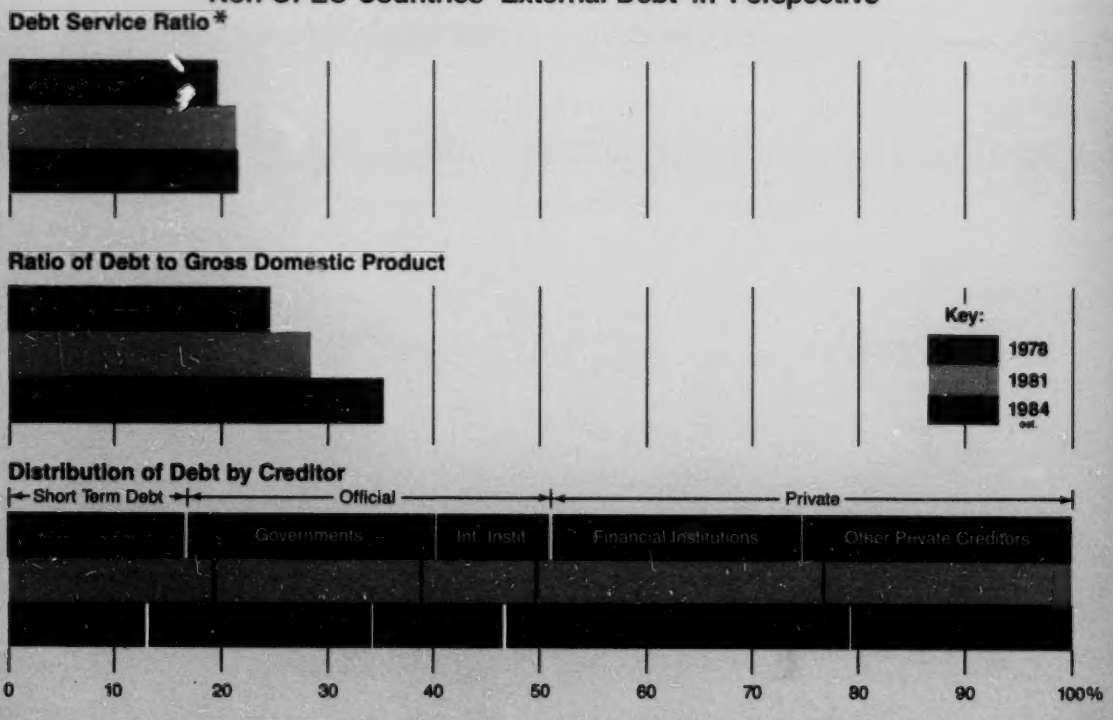
developing world will grow by about 5 percent annually (in real terms) over the next five years, this still would provide only about one-fifth of the capital inflows required by debtor countries.

By 1984, a combination of stronger debtor-country exports and reduced borrowing already had begun to ease the existing debt burden somewhat. The combined current-account deficit of all developing-country debtors fell from $103 billion in 1982 to $38 billion in 1984. The seven biggest borrowers—Argentina, Brazil, Indonesia, Mexico, the Philippines, South Korea, and Venezuela—recorded an even sharper improvement, reducing their combined deficit from $40 billion to $1.5 billion in the two-year period.

For the developing countries as a group total external indebtedness as a proportion of exports of goods and services fell to 151 percent in 1984 from its 1983 peak of 158 percent. The IMF sees this trend continuing and in April, 1985, predicted that the seven largest debtors would be able to reduce their debt-to-exports ratio quite sharply—from 255 percent in 1983 to 150 percent by 1990. However, the IMF also warned that such an improvement would require that debtor countries maintained their domestic adjustment programs and that the trade-weighted exchange rate for the dollar fell by 5 percent annually after 1987.

Sources: International Monetary Fund; World Bank

Non-OPEC Countries' External Debt in Perspective



*Debt payments as percent of exports of goods and services.

Exchange Rates

Exchange-rate fluctuations continue to be viewed as a matter of international concern by both policymakers and the business community. Despite the often-heard argument that, unlike the Bretton Woods system of fixed rates, the present exchange-rate arrangements are a nonsystem, countries still are under certain obligations with respect to their exchange-rate policies. The IMF's Articles of Agreement, as amended in 1978, ask member countries "to collaborate with the Fund and other members to assure orderly exchange arrangements and to promote a stable system of exchange rates."

As to the actual behavior of rates, exchange-rate variability by almost any measure, has been much greater since the advent of floating in 1973 than during the last ten years of the par-value system (1963-1972). Moreover, the prediction that variability would lessen as traders and policymakers adjusted to the new regime did not prove correct. While exchange-rate variability did decline for some years, after exhibiting sharp swings in 1973, it rose markedly again in the late 1970's and early 1980's.

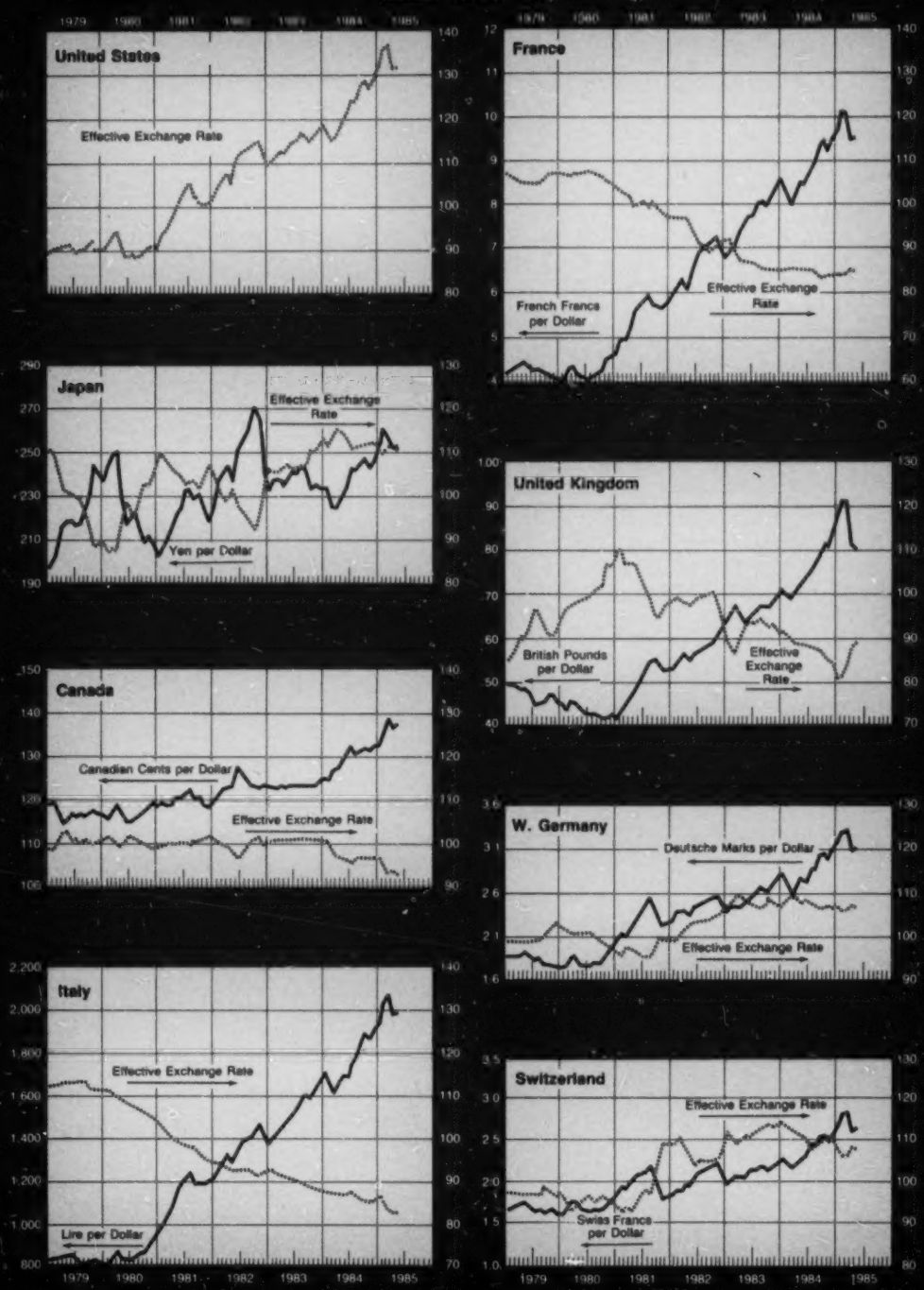
Exchange-rate variability has been substantially greater under floating rates than could be accounted for by inflation differentials among countries. As a result, there have been large fluctuations in "real" exchange rates as well. At least over the short and medium term, the so-called purchasing power parity—that is, adjustment of exchange rates to differentials in domestic inflation rates—has not been maintained.

But it has also been true that exchange-rate variability has been considerably smaller than the variability of other asset prices. Thus, monthly exchange-rate changes during 1973-1983 were much smaller for the seven major currencies than changes in stock prices, short- and long-term interest rates, or commodity prices. This supports the view that the period of floating rates was sufficiently unstable to affect the prices of all major assets.

Looking at the diversity of actual exchange-rate arrangements currently in force, the impression can arise that the system is basically one of fixed rates: As of March 31, 1985, 94 countries, almost all of them developing ones, were pegging their currencies. Still, since the largest trading countries maintain either limited exchange-rate flexibility or completely flexible arrangements, in terms of world trade the system is definitely one of floating rates.

The currencies of four of the largest industrial countries—Canada, Japan, the United States, and the United Kingdom, which account for 30 percent of world trade—are "independently floating." If "floating trade" is measured as the global sum of that portion of each country's trade that takes place at floating rates, between two-thirds and four-fifths of world trade is conducted at floating rates.

Sources: International Monetary Fund; Morgan Guaranty Trust Company.



Note: Nominal Effective Exchange Rates. Index numbers 1980-82 = 100. Each index shows a currency's trade-weighted appreciation or depreciation measured against fifteen other major currencies using averages of daily noon spot exchange rates in New York and bilateral trade weights based on 1980 trade in manufactures.

Multinational Corporations

Less than twenty years ago, it was an all-too-familiar stereotype that the multinational corporation tended to be based in the United States. This perception reflected the phenomenon of the *défi américan*, or the American challenge, formulated by Jacques Servan-Schreiber in 1968.

It is understandable that multinational corporations used to be seen as typically U.S. creatures. In many countries, they were among the first to arrive and also remained the most visible. Moreover, U.S. firms are easier to study because data on their foreign activities are the most detailed and extensive available.

Yet, one of the main events on the international business scene of the past ten to fifteen years has been the dramatic gains made by non-U.S. MNC's over their U.S. counterparts. In 1971, U.S. multinationals accounted for 58 of the world's 100 largest industrial corporations and for 280 of the 500 largest; by 1979, that share had dropped to below one-half for each group. Similarly, a breakdown of the world's 500 largest industrial corporations by size of sales reveals that the traditional lead in the top sales categories, long enjoyed by U.S. firms, disappeared by the end of 1970's.

One of the most striking aspects of the growth of other-country multinationals has been their expansion in the United States. Foreign direct investment in U.S. affiliates—defined as U.S. business enterprises in which a single foreign investor holds at least 10 percent of equity—grew more than sixfold in the ten years through 1983. At the end of 1983, such investment amounted to $135 billion, some $48 billion of which was in manufacturing. More than two-thirds of the year-end 1983 position was accounted for by European parent companies, with Canadian and Japanese parents accounting for 8 percent each. By contrast, U.S. direct foreign investment abroad did little more than double over the same ten-year period, to $226 billion at year-end 1983, with $90 billion in the manufacturing sector.

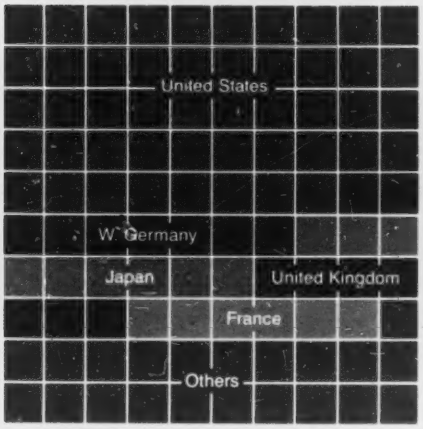
Another aspect of the expansion of the multinational enterprise is that up to 50 developing countries were estimated to have companies with direct overseas investments by the early 1980's. One estimate puts the number of foreign manufacturing and trading subsidiaries of companies from 15 developing countries at around 1,300. Most such investments are in other developing countries. But they reflect objectives similar to those motivating multinationals from the industrial countries—to obtain markets inside import barriers; to expand sales in general; and to find cheaper centers of production to serve regional markets.

Hong Kong is the largest source of such investment (including investment by expatriate British firms and local Chinese companies). Singapore also has foreign investments by Chinese entrepreneurs, mostly in Malaysia. India, South Korea, Taiwan, Argentina, Mexico, and Venezuela each are estimated to have overseas investments of between $50 million and $100 million.

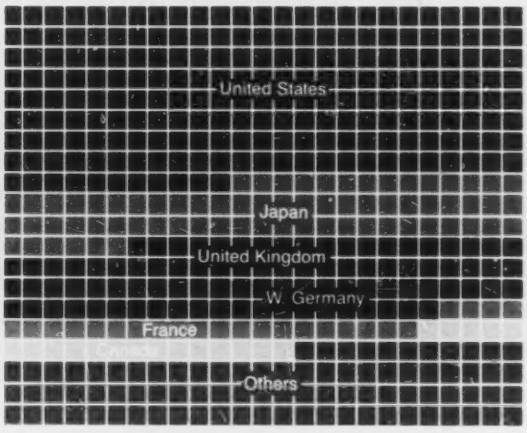
Source: Fortune; U.S. Department of Commerce; *The Economist*.

World's Largest Industrial Corporations, 1983

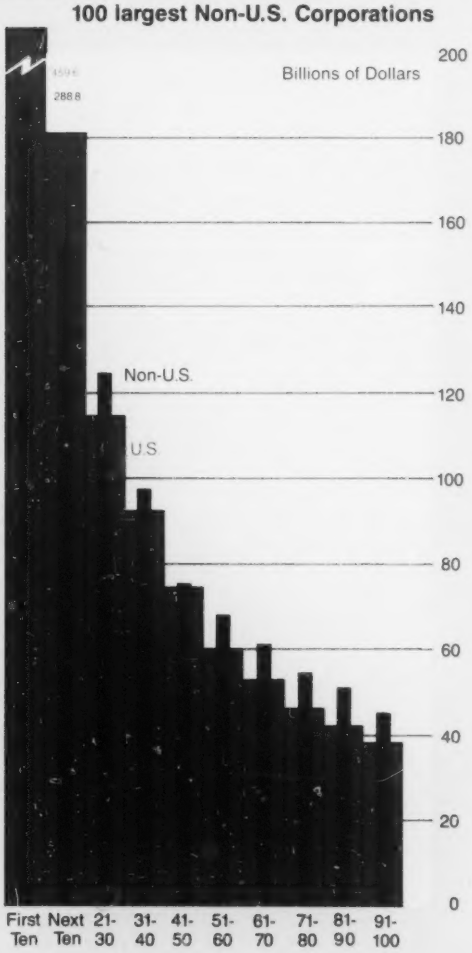
100 Largest, by Nationality



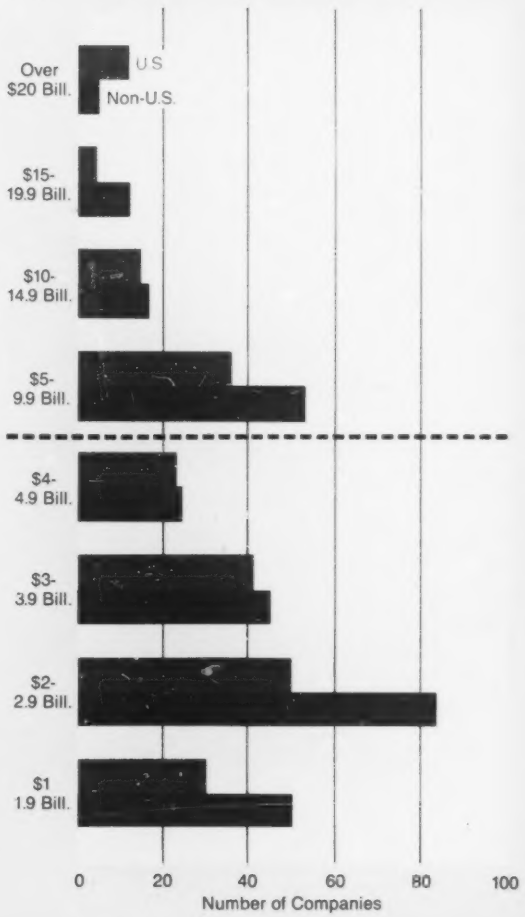
500 Largest, by Nationality



Combined Sales of 100 Largest U.S. and 100 largest Non-U.S. Corporations



500 Largest Companies: Number of Companies, by Sales



References

Basche, James R. Jr., *Technology Imports Into the United States*. Research Bulletin No. 129. The Conference Board, 1983.

Dini, Lamberto. "The Changing International Monetary System." Banca Nazionale del Lavoro, *Quarterly Review*, December 1984.

"The 500 Largest U.S. Industrial Corporations." *Fortune*, April 30, 1984.

Guth, Wilfred, "International Liquidity: Can Its Supply and Distribution Be Improved?" *The Banker*, December 1984.

Hein, John, *1985 International Economic Outlook*. Research Bulletin No. 169. The Conference Board, 1984.

"Here Come the Multinationals of the Third World." *The Economist*, July 23, 1983.

"The International 500," *Fortune*, August 20, 1984.

International Labour Office, "Labour Force and World Population Growth." *Bulletin of Labour Statistics*, Special Edition, 1974.
—— *Employment Effects of Multinational Enterprises in Industrial Countries*. 1981.

International Monetary Fund, *Exchange Arrangements and Exchange Restrictions*. Annual Report, June, 1984.
—— *The Exchange Rate System: Lessons of the Past and Options for the Future*. Occasional Paper No. 30, July 1984.
—— *IMF Survey*, biweekly.
—— *International Financial Statistics*, monthly.
—— *World Economic Outlook*. May, 1984; September, 1984; April, 1985.

The International Monetary System: Forty Years After Bretton Woods. Proceedings of a Conference held in May, 1984. Federal Reserve Bank of Boston, 1984.

"International Trade and Technology." Paribas, *Conjoncture*, December 1984.

Morgan Guaranty Trust Company. *World Financial Markets*. Monthly.

"Nirvana by Numbers," *The Economist*, December 24, 1983.

Organisation for Economic Co-operation and Development, *Development Co-operation*. 1984 Review. Report by Rutherford M. Poats, Chairman of the Development Assistance Committee. November 1984.
—— *The OECD Observer*, monthly.

United Nations, *Monthly Bulletin of Statistics*, monthly.
—— *Trade and Development*. An UNCTAD Review, No 5, 1984.
—— *World Economic Survey 1984*. 1984.

U.S. Department of Commerce, "Foreign Direct Investment in the United States in 1983." *Survey of Current Business*, October, 1984.
——*International Economic Indicators*, quarterly.

U.S. Department of Energy, *Annual Energy Outlook 1983*. May, 1984.
—— *International Energy Annual 1983*, November, 1984.

U.S. National Science Foundation, *National Patterns of Science and Technology Resources, 1984*. February, 1984.

World Bank, *Coping With External Debt in the 1980's*. March 1985.
——*World Bank Atlas*. 1985.
——*World Development Report 1984*. May 1984.